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DEPARTMENT OF THE INTERIOR
BUREAU OF EDUCATION

BULLETIN, 1916, No. 33

REGISTRATION AND STUDENT RECORDS FOR SMALLER COLLEGES

COMPILED BY

BENJ. F. ANDREWS
SPECIALIST IN LAND GRANT COLLEGE STATISTICS
BUREAU OF EDUCATION

WASHINGTON
GOVERNMENT PRINTING OFFICE
1916

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LETTER OF TRANSMITTAL.

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION,
Washington, D. C., October 25, 1916.

SIR: The recording offices of many small colleges in various parts of the country have failed to develop appropriate and convenient systems for registering important data concerning the academic work of students. Members of the Bureau of Education who visit such institutions are frequently asked to suggest practical methods for recording the desired information. With a view to meeting the insistent needs of registrars of colleges of this type, I have requested Mr. Benjamin F. Andrews, specialist in land-grant college statistics, to gather the registration forms which have been successfully used in a number of collegiate institutions and to prepare a brief statement on the fundamental operations of the registrar's office. The accompanying document presents this material. I recommend that it be published as a bulletin of the Bureau of Education.

Respectfully submitted.

P. P. CLAXTON,
Commissioner.

The SECRETARY OF THE INTERIOR.

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REGISTRATION AND STUDENT RECORDS.

The registrar's office is the pulse of a college. The machinery for recording every relation of the student to the university, and the completeness and availability for reference of this record, reveal the vitality and efficiency of the institution. Large universities have recognized this fact for some time. Most of them have developed systems of registration entirely adequate to the needs of administrative officers, systems which may be interpreted also by an outside inquirer seeking information as to the academic policies or standards.

Some small colleges have developed similar records, but many of them still tolerate very rudimentary systems of registration, or perhaps no system at all, depending wholly for knowledge of the standing of former students upon the memory of some overworked member of the faculty, reenforced perhaps by a few cryptic marks preserved in old ledgers or on loose and scattered sheets of paper. A few institutions where such slipshod methods prevail realize the importance of keeping accurate records, but do not know of what these should consist or what forms have been found most convenient for entering and for subsequent reference. Others have not yet perceived the value of the operations of the registrar.

Two paramount reasons may be cited for the keeping of adequate and systematic records. First, the college owes it to students who may transfer to another institution or who may later refer to their alma mater for statements of their character and academic achievements. Second, no institution may be sure of itself, of the honesty and consistency with which it maintains its standards, of the trend of its academic policies, unless all data bearing on these matters are immediately and fully recorded. Faculties are generally humane, they tend to make exceptions. The multitude of exceptions sometimes nullifies the rule. If an institution is to know whether its rules or the exceptions are really the rule, the facts must be put down in the records where they can not be forgotten.

In view of the desirability of encouraging certain of the smaller institutions to keep proper records, this brief summary of the fundamental processes of the registrar's office is offered. It is hoped that it may prove helpful. The material on which it is based consisted

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of numerous printed forms submitted in response to inquiries from the Bureau of Education.

The forms submitted show that college registration records vary almost infinitely. Apparently no two institutions use identical methods. The larger universities have evolved forms and systems which answer their own purposes perfectly, but are of little help to the colleges of smaller organization. Columbia University, for example, with its many departments and very large enrollment, has an intricate system involving a multiplicity of forms. Yet there are certain major operations which must be carried on everywhere, and forms have been developed for recording them which approach a common type. These operations are described below and samples of some of the most convenient forms are reproduced.

The keeping of student records naturally divides itself into several main stages:[1]

I. Before entering college.
II. At entrance.
III. During the college course.
IV. Alumni records.

I. FORMS USED BEFORE ENTRANCE.

1. THE APPLICATION BLANK.

The object of this blank is to file with the institution the name of the prospective student and such other advance information as may seem desirable. The blank may be simply an address card or a form designed for a somewhat detailed precollegiate and personal history. The detailed form has the advantage of showing at once whether the student has covered the preparatory ground and may be considered for certification or examination for admission. A number of the institutions accompany the application blank with the rules for admission printed either on the back (Northwestern, Ie) or on a separate slip fastened to it (Knox, If). This blank is sometimes used to reserve dormitory or classroom space, and for this purpose it may be filed months before actual enrollment. Such a blank is used by Randolph-Macon Woman's College (Ia). Other examples of the various forms in use are those of Lehigh University (Ib), University of Cincinnati (Ic), Massachusetts Agricultural College (Id), Northwestern University (Ie), and Knox College (If).

From the forms submitted the following questions have been selected to form a complete application blank. Each of the ques-

[1] In connection with each of these stages are many minor operations, for the recording of which numerous forms have been developed. These are, for instance, student identification cards, cards for admission to classes, athletic tickets, report cards of all sorts, notifications of failures, excuse for absence cards, transfers to other departments, etc. Since in the smaller institutions their place can generally be taken with much economy by a typewritten letter, no attempt will be made to show their use. For samples see Appendix B.

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tions given below appears in several, if not all, of the forms used by different institutions:

DATE OF APPLICATION.

A. The Applicant.
   1. Name, home address.
   2. Place and date of birth, age.
   3. Religious or church preference or connection.

B. Parents or Guardians.
   1. Name, home address.
   2. Occupation.

C. Preparatory Training.
   1. Schools—name, location, principal of each.
   2. Length of time at each. Graduate or not.
   3. Other college.
   4. Teaching experience (for normal students only).
   5. Preparatory studies completed—college units for each. Which may be certified? Which require examination? Conditions in entrance studies.

D. College Course.
   1. What course do you intend to enter?
   2. When or in what class?
   3. Scholarship or other aid.

Although this blank is undoubtedly useful in giving the institution advance information, and thus enabling it to prepare for examinations and instruction, yet its use may be entirely dispensed with, especially in the small college, where correspondence with the prospective students has frequently been kept up for months before entering. Much of the same information is also given on the usual preparatory school certificate. The filing of such certificate may render the application blank unnecessary.

[FORM 1a.]

Form A. No. .....

RANDOLPH-MACON WOMAN'S COLLEGE.

(NOTE.—Rooms are assigned new applicants in the numbered order of their applications. To secure a reservation, this form should be properly filled and returned by parent or guardian with inclosure of $10. The money is credited on account when the student enters, but will be returned if the application is canceled prior to July 1, or if preparation is found to be insufficient.)

APPLICATION FOR ADMISSION.

....., 191....

To Randolph-Macon Woman's College:

I herewith apply for admission for my daughter (ward) to college for the session of 191 –191 , and request that room be reserved in accordance with the conditions noted above.

Name of parent (or guardian).....
(With professional title.)
Address.....
Name of student.....
(Full name.)
Address.....
Date of birth.....
Church affiliation.....Member?.....
Prepared at { Name of institution..... / Location..... / Principal.....
Number of years in high school or seminary.....
Graduate?.....

Upon return of this, a blank form of certificate will be sent.

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[FORM Ib.]

LEHIGH UNIVERSITY.

I hereby apply for admission to Lehigh University.

Name in full.....

Place of birth.....

Date of birth.....

Preparatory school or college.....

(Name in order all high and preparatory schools attended.)

Course you purpose taking.....

Date you contemplate entering.....

Religious denomination.....

Father's, mother's, or guardian's name.....

" " " occupation.....

" " " address.....

[FORM Ic.]

UNIVERSITY OF CINCINNATI.

REGISTRATION BLANK.

Date.....

Name in full.....

(Including middle name, without initials or contractions.)

Place of birth.....

Date of birth.....

Cincinnati address.....

Home address.....

(As you wish it printed in catalogue.)

Is last address within Cincinnati's corporation line? .....

What is the length of your consecutive residence in Cincinnati immediately prior to this date? .....

Where did you reside before coming to Cincinnati? .....

Name in full and present post-office address of father, or the name and address of guardian, if father is not living.....

.....

Occupation of father.....

Denominational preference.....

Are both parents living? .....

School last attended and date.....

Have you ever attended this university? .....

Date of last attendance.....

In what college are you registering? .....

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[FORM Id.]

[Obverse.]

MASSACHUSETTS AGRICULTURAL COLLEGE.

APPLICATION FOR ADMISSION.

Dated.....

The candidate is requested to fill out this blank and after it has been approved by the principal to return it to The Registrar, Massachusetts Agricultural College, on or before June 1, if candidate for June examinations, before August 1, if candidate for September examinations. (For regulations concerning entrance, see other side.)

Name in full.....

Permanent residence. { Town..... Street and No., if any ..... County..... State.....

Name of parent or guardian.....

To take examinations at.....in { June, Sept.

To enter Massachusetts Agricultural College in September, 19....

I offer for admission the subjects indicated on the list appended.

Subjects to be offered on certificate must be marked "C." Subjects in which examination is desired in June, 19 ...., should be marked "X June." If September examination is desired, mark "X Sept."

Name of preparatory school.....

Location.....

Recommended for examination in subjects marked "X."

Will be certified in subjects marked "C."

Moral character of applicant.....

.....

Approved..... Principal.

..... School.

---

[1] Examination in September only.

[2] Notebook required as part of preparation will be credited as part of the examination.

[3] One must be offered for the required point, one, two, or three others may be offered for elective points.

[4] One credit for each offered.

[5] May be offered as elective if not offered to satisfy *required* points.

[6] On certificate only, no examination given.

[*] ½ or 1 credit allowed, depending on time spent in preparation and ground covered. Insert credit earned.

ENTRANCE.

SUBJECTS.	CR.	
Agriculture [1]	*	
Botany [2]	*	
Chemistry [2]	1	
Algebra	1½	
Plane Geometry	1	
Solid geometry	½	
Trigonometry	½	
Physics [2]	1	
Geology	½	
Physiology	½	
Physiography	½	
Zoology [2]	½	
History [3] (one unit required)		
Ancient [4]	1	
English [4]	1	
General [4]	1	
Medieval and modern [4]	1	
U. S. and civics [4]	1	
English	3	
English, 4th credit [1]	1	
El. French or El. Germ.	2	
El. French [5] or El. Germ. [5]	2	
French Int.	1	
French Adv.	1	
German Int.	1	
German Adv.	1	
Greek A [1]	2	
Greek B [1]	1	
Latin A.	2	
Latin B.	1	
Com. geography [6]	½	
Drawing [6]	½	
Manual training [6]	*	

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[Reverse.]

Regulations Concerning Entrance.

A. MODES OF ADMISSION.

Students are admitted to the freshman class either upon certificate or upon examination. No *diploma* from a secondary school will be accepted.

Certificates.—Certificates will be received from those schools in New England which have been approved by the New England College Entrance Certificate Board. Principals of schools in New England who desire the certificate privilege should address the secretary of the board, Prof. Frank W. Nicolson, Wesleyan University, Middletown, Conn. Certificates from schools outside of New England will be received if those schools are on the approved list of the College Entrance Certificate Board of the section in which the school in question is located.

Certificates, in order to be accepted, must present not less than 7 of the necessary 14 credits. The only exception to this rule is indicated under note 6, certification in these subjects being allowed, although no other subject be offered on certificate. All credits lacking on certificate must be made up at the time of the entrance examinations. (Two points condition will be allowed on entrance work.) [1]

Blank forms for certification—sent to principals or school superintendents only—may be obtained on application to the registrar of the college.

The credentials of the board of regents of the State of New York are accepted as satisfying the entrance requirements of this college when offered subject for subject.

Examinations.—The examination in each subject may be oral or written, or both. The standard required for passing an examination for admission is 65 per cent. Conditions to the amount of two units will be allowed.[1]

B. REQUIREMENTS FOR ADMISSION.

The requirements for admission are based on the completion of a four-years' course in a high school, or its equivalent, and are stated in terms of units. The term unit means the equivalent of four or five recitations a week for a school year. **Neither more nor less credit will be given in any subject than is indicated in the table appended.** Fourteen units must be offered for admission. In the list appended, *every subject in black-faced type is absolutely required and no substitution is allowed.* The subjects so typed total eight and one-half units. In addition to these points five and one-half more units must be chosen from the subjects printed in light-faced type.

Presentation of notebooks.—The keeping of a notebook is required as part of the preparation in those subjects indicated (see note 2).

Candidates presenting themselves for examination in such subjects must present at the same time the required notebook, properly certified by the principal. Candidates presenting such subjects on certificate should not present notebooks; but their certificates must state that notebooks have been satisfactorily completed.

Provision is made for the removal of entrance conditions as follows: (1) First entrance condition examination, in the week following the Thanksgiving recess. (2) Second entrance condition examination, in the sixteenth week of the first semester.

---

[1] *Entrance with condition in English.*—Under the rule permitting entrance conditions of not more than two units of the preparatory subjects, applicants may be admitted upon examination, with a condition in English, provided that they show, upon examination, satisfactory preparation in work, entitling them to a ranking of 60 or higher.

Students, so admitted, must, to remove the condition, pass an examination covering the regular three-units requirement.

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[FORM Ie. Folder of four pages.]

NORTHWESTERN UNIVERSITY.

College of Liberal Arts.

APPLICATION FOR ADMISSION.

Registration No...... .....*Clerk.*

The first page is to be filled out by the applicant in his own handwriting and the blank is to be returned to the Registrar's Office, Northwestern University, Evanston, Ill., without delay.

1. Name of applicant..... (First name. Middle name. Surname.)
2. Home address.....
3. Place of birth..... Date of birth.....19.... Age in years..... (Month. Date. Year.)
4. Name of father (or guardian).....
5. Post-office address of father (or guardian).....
6. Occupation of father.....
7. Places of preparation for college:

Name and location of school.	Years of attendance.	Name of principal
(*a*).....	.....	.....
(*b*).....	.....	.....
(*c*).....	.....	.....

8. If you already have attended a college, give the name and the time spent therein:
.....
9. What are your plans after graduation?.....
10. Of what church are you a member?.....
11. If not a member, what church are you accustomed to attend?.....

Carefully read the following before signing:

I promise, upon my honor, to abstain from cane rushes and from all forms of hazing while I am connected with the university.

Date.....191.... Signed.....

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[Page 2 of folder.]

REPORT OF EXAMINERS.

M.....

entered from the.....school, is entitled to entrance credits as follows:

	Units of credit.	Examiner's signature.		Units of credit.	Examiner's signature.
GROUP A.			GROUP C—continued.		
1. English—(a), (b), (c)			22. Physiography		
2. Mathematics—Algebra (a), (b)			23. Physics		
(c) Plane geometry			24. Botany		
			25. Zoology		
GROUP B.			26. Chemistry		
			27. Ancient history		
6. Greek—(a)			28. Mediæval and modern European history		
7. Greek—(b)			29. English history		
8. Greek—(c)			30. American history		
9. Latin—(a)			31. Civil government		
10. Latin—(b)			32. Political economy		
11. Latin—(c)			33. Commercial geography		
12. Latin—(d)			34. Commercial law		
13. French—(a)			35. Physiology		
14. French—(b)					
15. French—(c)			OTHER SUBJECTS.		
16. German—(a)					
17. German—(b)					
18. German—(c)					
19. Spanish—(a)					
20. Spanish—(b)					
GROUP C.					
21. Mathematics—					
(a) College algebra					
(b) Plane trigonometry					
(c) Solid geometry					

Conditions.....units
.....units
.....units
Total.....units

Dated.....191....

For the board of examiners.

.....

Surplus subjects.....

[Page 3 of folder.]

M.....is entitled to college credit without examination as noted below for work completed in.....

.....{College. / University.} This credit is to be written up after approval by the chairman of the committee on advanced standing, and is subject to the completion of a semester's work in a satisfactory manner. Credit as follows:.....

.....

.....

Date.....191....

.....

For the committee on advanced standing.

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[Page 4 of folder.]

REQUIREMENTS FOR ADMISSION.

Candidates for admission to the college of liberal arts of Northwestern University must qualify by examination or by certificate on 15 units of high-school work. The unit is a course of study requiring a daily recitation on a prepared topic for a full school year, and covering in the various subjects the work defined in the university catalogue. These definitions of units are the same as those adopted by the North Central Association of Colleges and Secondary Schools. Two hours of laboratory work are counted as the equivalent of one hour of prepared recitation.

The subjects which may be presented for admission credit and the number of units acceptable in each are shown in the following table. English, three units; algebra, one or one and one-half units; and plane geometry, one unit, are required of all candidates. A choice is allowed in the selection of other subjects, but at least four units of foreign languages must be presented. These may be four units of Latin, or three units of one language and one unit of another, or two units of each of two languages. A single unit of any language will be accepted only when accompanied by at least three units of some other language or two units of each of two others. The remaining work may be selected at will from the subjects listed.

SUBJECTS WHICH MAY BE PRESENTED FOR ENTRANCE CREDIT.

The first three subjects in the amounts indicated are required of all candidates.

	Units.		Units.
English	3	Botany	1
Algebra	1 or 1½	Zoology	1
Plane geometry	1	Chemistry	1
		Ancient history	1
Latin	2, 3, or 4	Medieval and modern history	1
Greek	2 or 3	English history	1
German	2 or 3	American history (or with civil	
French	2 or 3	government)	1
Spanish	2	Civil government	½
Advanced algebra	½	Political economy	½
Plane trigonometry	½	Commercial geography	½
Solid geometry	½	Commercial law	½
Physiography	1	Physiology	½
Physics	1	Subjects not specified	2

Under the heading "Subjects not specified" such topics as manual training, domestic science, mechanical drawing, etc., may be presented at the discretion of the board of examiners. Subjects enumerated above as full units may be presented as half units, or they may be presented in excess of the amounts stated, only as "Subjects not specified" and such credit is thus limited to two units.

A candidate with not more than two units of condition may be admitted to college as a regular student at the beginning of the year, but all deficiencies must be made up within one year.

Persons of serious purpose and mature years may be admitted as special students for courses which they are qualified to pursue and which are not to be had elsewhere than in college. In general, special students must meet the regular entrance requirements.

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[FORM K.]

KNOX COLLEGE.

APPLICATION FOR ADMISSION.

THE FOLLOWING INFORMATION IS REQUIRED OF ALL APPLICANTS.

Date, ...

1. Name of applicant..... (First name. Middle name. Surname.)
2. Home address.....
3. Galesburg address.....
4. Place of birth.....Date.....Age in years.....
5. Name of father (or guardian).....
6. Post-office address of the same.....
7. Occupation of father.....
8. Place of preparation for college, the years spent in each school, and the names of the principals:
   (*a*) ....., years....., principal.....
   (*b*) ....., years....., principal.....
   (*c*) ....., years....., principal.....
9. If you have attended college, give the name of the college and the time spent therein.....
10. If you have taught in any school, state the number of years of such service.....
11. What college degree do you seek to obtain?.....
12. What are your plans after graduation?.....
13. Are you a member of a church?.....
14. If so, of what denomination?.....
15. If not a member, what church are you accustomed to attend?.....

Signed.....

[Reverse.]

REPORT OF THE COMMITTEE ON ENTRANCE REQUIREMENTS AND CLASSIFICATION.

M....., candidate for..... degree, entering from.....School, is entitled to entrance credits as follows:

	Units.		Units.
ENGLISH:		LATIN:	
Composition and rhetoric		First year	
Required readings		Second year	
History of English literature		Third year	
History of American literature		Fourth year	
HISTORY AND CIVICS:		GREEK:	
		First year	
MATHEMATICS:		Second year	
Algebra		Third year	
Plane geometry		GERMAN:	
Solid geometry		First year	
Trigonometry		Second year	
SCIENCE:		Third year	
Physics, laboratory work		FRENCH:	
Chemistry, laboratory work		First year	
Botany, laboratory work		Second year	
Zoology, laboratory work		Third year	
Physiology, laboratory work			
Physiography		Total number of units	

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Deficient.....elective units, and.....specified units as follows:

.....

Advanced credits.....

.....

Remarks: .....

.....

Date..... .....

Chairman of Committee.

[Blank sheet attached to above.]

REQUIREMENTS FOR ADMISSION TO KNOX COLLEGE.

Fifteen units [1] are required for admission. All candidates for entrance must present the following units:

(1) English (composition and rhetoric, 1; reading in the classics, 2).....	3
(2) Foreign [2] languages (2 years in same language).....	2
(3) Mathematics (algebra, 1 or 1½; plane geometry, 1).....	2 or 2½
(4) Science (physics recommended).....	1
(5) History (a year's course in ancient history is strongly recommended).	1
	[3] 9 or 9½

[1] A unit represents a year's study in any subject in a secondary school, constituting approximately a quarter of a full year's work.

[2] Foreign languages accepted include Latin, Greek, and modern foreign languages.

[3] Depending on the amount of algebra presented.

The remaining 5½ or 6 units may be in any subjects accepted for graduation from a recognized secondary school; provided, however, that not more than one unit may be presented in any vocational subject counted toward graduation in a recognized secondary school.

A student presenting the units specified above and enough more to total 13½ will be admitted to the freshman class on condition that the deficiency in entrance units shall be made up in the first year.

All first-year students are considered as registered provisionally during the first semester. Those receiving satisfactory grades for the first semester are considered as permanently enrolled.

Students may enter by examination or by presenting credentials from a recognized secondary school. Certificates should be made out upon blank forms which will be supplied to principals by the registrar upon request. Applicants should, if possible, forward these credentials previous to the opening of the college year. It is often most convenient to obtain them before the close of the high-school year. Upon receipt of these credentials by the college a statement of the student's standing will be forwarded to him. He then has no further responsibility in the case until registration day for new students, as announced in the catalogue.

2. PREPARATORY SCHOOL CERTIFICATE.

This is the basis of the admission plan of a majority of American universities and colleges. It is made out and signed by the head of the preparatory school, which usually has been inspected and approved by the college, State education department, or State university as equipped to prepare students for college. This is one of the two indispensable forms for college registration.[1]

[1] The other being the permanent record form, to be shown later.

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Several educational associations or groups of institutions have for some time endeavored to secure the adoption of uniform school certificates, each in its own section. Chief among these are the North Central Association of Colleges and Secondary Schools and the Association of Colleges and Secondary Schools of the Southern States. In spite of these movements, some institutions prefer to use their own forms, differing in a greater or less degree from those recommended by the associations; so that it seems advisable to reproduce several of the independent forms, as well as those used by associated colleges. As suggested above, by adding to the school certificate the few additional questions contained in the application blank, the small college need use but one form for filing all of a student's record previous to entering college.

Of the school certificates illustrated, the one recommended by the North Central Association of Colleges and Secondary Schools (Ig) and that of Harvard College (Ih), while differing in form, demand practically the same information, both being very complete. They differ chiefly in the fact that the North Central blank (Ig) prints the names of the studies and furnishes a column to state the year in which each is given, while Harvard (Ih) groups the studies in the different years, but leaves the subjects to be written in. The Allegheny College blank (Ik) is a model of brevity and compact arrangement. Other examples are those of the University of Rochester (Im) and of Dartmouth College (In).[1]

Questions covering the following points are common to the best secondary school certificates.

PREPARATORY SCHOOL CERTIFICATE.

(Questions in italic are not usually asked, but are advisable.)

A. Applicant:
   1. Name and home address.
   2. Place and date of birth. Age.
   3. Church preference or connection.

B. Parents or guardians:
   1. Name and address.
   2. Occupation.

C. Preparatory school:
   1. Name and location of school.
   2. Period in attendance.
   3. Graduate? Date.
   4. If any of the subjects certified were taken at another school, give name and date of attendance.

[1] In practice the certificate is examined by the proper officers of the college and the student notified of the result. No example of notification form is given here, although several were submitted, showing admission by full certification, by part certification and part examination, by full certification with entrance conditions, and of failure to qualify. Frequently the preparatory school is also notified of its student's success on a special blank for that purpose.

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D. System of grading students in preparatory school:
   1. Length of recitation period.
   2. Number of customary class periods per week for each student.
   3. What is the marking system? Especially, what is the passing grade?
   4. *Is grade determined by* (*a*) *regular class work?* (*b*) *by examination? or* (*c*) *by judgment of the instructor?*
   5. *Laboratory work—Length of period? Relation to recitation periods?*

E. School record—Names of studies in detail:
   1. Textbooks and amounts covered.
   2. Number of weeks studied.
   3. Number of periods per week.
   4. Year in which subject was taken, first, second, third, or fourth.
   5. Class standing in each subject.
   6. Value of subject in entrance units.
   7. Remarks.[1] *Especially give home reading and supplementary study.*

F. *Personal peculiarities:*
   1. *Quick or slow student.*
   2. *Outside interests.*
   3. *General remarks.*

G. The college:
   1. Course to be entered.
   2. Entrance units required.
   3. Entrance units offered—
      a. By certification.
      b. By examination.
      c. By condition (unprepared).
   4. A copy of abstract of rules for admission, self-government pledge, etc., printed on the blank.

H. Certificate of good moral character.

I. Signature of principal of preparatory school.
   Date of certificate.

[FORM 1g.]

[Folder of four pages.]

Uniform blank adopted by the North Central Association of Colleges and Secondary Schools, modified to meet Iowa usages.

NORTH CENTRAL ASSOCIATION OF COLLEGES AND SECONDARY SCHOOLS.

This is to certify that..... who was graduated from the.....High School on the.....day of....., 191...., is a person of good moral character and studious habits, has satisfactorily completed preparatory studies as herein indicated, *and is recommended as able to carry forward college work.*

The amount and quality of the work completed in the several subjects required are given in the table on the following pages. Total number of units.....

.....
Principal or superintendent.

This certificate will be accepted by all universities and colleges in Iowa.

Name of college course candidate desires to pursue.....

[1] None of the forms submitted asks specifically regarding the student's record in student activities. It might be desirable to introduce a few questions dealing with athletics, musical or literary clubs, membership in secret societies, and other personal tastes. None of the colleges submitting forms seems interested in the race, color, or nationality of its prospective student. Only one asks his intention for life after graduation; one wants to know if he has been successfully vaccinated; one (a member of the College Entrance Examination Board) asks where he intends to take the examinations; and one asks regarding previous teaching experience from its prospective normal students.

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[Page 2 of folder.]

Age of applicant, ...years. Regular total number of class periods

Laboratory periods, ...minutes. per week for each pupil, ...

Recitation periods, ...minutes.

N. B.—Blank spaces are left under each subject for additions, such as bookkeeping, manual training, drawing, etc.

Branches of study.	Years in course (1st, 2d, 3d, or 4th).	Textbooks. (Need not be given if school is accredited.)	Number of weeks pursued.	Number of periods per week.	Average standing.	Units granted. (Do not write in spaces below.)	Remarks.
ENGLISH: Composition and rhetoric.							
American literature (with classics in prescribed list).							
History of English literature (with classics in prescribed list).							
Classics read in addition to prescribed list (or equivalents).							
Grammar							
HISTORY: Ancient history							
Medieval and modern history.							
English history							
United States history							
Civil government							
Political economy							
MATHEMATICS:							
Algebra *to* quadratics							
Algebra, quadratics, theory of exponents, progressions, ratio, and proportion.							
Plane geometry							
Solid geometry							
Plane trigonometry							
Arithmetic (*after* algebra).							
SCIENCE: Physics							
Chemistry							
Botany							
Zoology							
Biology							
Physiology							
Physiography							

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[Page 3 of folder.]

Passing grade, ... per cent.

Branches of study.	Years in course (1st, 2d, 3d, or 4th).	Textbooks. (Need not be given if school is accredited.)	Number of weeks pursued.	Number of periods per week.	Average standing.	Units granted. (Do not write in spaces below.)	Remarks.
GREEK: Grammar and reader.							
Xenophon....[1] books.							
Composition...[1] pages.							
Homer.....[1] books.							
LATIN: Grammar and reader							
Cæsar.....[1] books.							
Cicero.....[1] orations.							
Virgil.....[1] books.							
Composition...[1] pages.							
Viri Romæ....[1] pages.							
Junior Latin...[1] pages.							
FRENCH: Grammar and reader.							
Second year							
Third year							
Fourth year							
GERMAN: Grammar and reader.							
Second year							
Third year							
Fourth year							

[1] Be *sure* to indicate the *number of books, orations, pages.*

[Page 4 of folder.]

CERTIFICATE OF

.....

From.....
NAME OF SCHOOL.

Date.....

Units.....

Deficiencies .....

.....

.....

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[FORM Ih.]

[Four-page folder.]

HARVARD COLLEGE.

1914.

APPLICATION FOR THE APPROVAL OF A SCHOOL RECORD FOR ADMISSION UNDER THE NEW PLAN.

Candidates for admission under the new plan should present their school records for approval as early as possible and not later than two weeks before their examinations.

No fee *should be sent with this application. If the record sent herewith is approved, a blank form of registration with directions as to the fee will be sent with the notice of approval.*

Name in full.....

Date of birth (month, day, year).....

Name of father or guardian.....

Home address (street, city, State).....

High schools or academies attended, and the dates of entering and leaving each school:

.....

.....

Name of principal of last school attended.....

For which degree do you wish to register—A.B. or S.B.?.....

At what place shall you present yourself for examination?.....

If you have already taken examinations, either those of Harvard or those of the College Entrance Examination Board, give the date or dates of those examinations.

.....

Underline in the list of studies below those subjects in which you wish to present yourself for examination.

COMPLETE LIST OF ADMISSION STUDIES (NEW PLAN).

English.	German.	Mathematics.
Greek.	French.	Physics.
Latin.	History.	Chemistry.

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[Page 2 of folder.]

SCHOOL RECORD.

FIRST YEAR (Date, ...).

Studies.	DESCRIPTION OF STUDIES. Textbooks and amount covered, authors read, supplementary work, etc.	No. of weeks.	Periods per week.	Length of period.	Grade.
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

SECOND YEAR (Date, ...).

Studies.	DESCRIPTION OF STUDIES. Textbooks and amount covered, authors read, supplementary work, etc.	No. of weeks.	Periods per week.	Length of period.	Grade.
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

[Twelve blank lines, as under first year.]

State the time given to laboratory work and describe the kind of work done.

[Blanks for third and fourth years, on page 3 of folder, same as for first year.]

CERTIFICATE OF PRINCIPAL OR HEADMASTER.

I hereby certify that the record given above is correct.

(*Signed*) .....

Date.....

[Page 4 of folder.]

EXPLANATION OF GRADES ENTERED IN THIS APPLICATION.

The principal or headmaster who signs the record presented in this blank is requested to explain the system of marking used in his school. The committee on admission especially desire to know what grades are regarded as honor grades and what grades indicate failure and poor work.

[Blank space on balance of page.]

.....

(*Signature of principal or headmaster.*)

Date, ...

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[FORM B.]

ALLEGHENY COLLEGE.

RECOMMENDATION FOR ADMISSION TO ALLEGHENY COLLEGE, MEADVILLE, PA.

This is to certify that M.....residing at.....is a graduate of the.....school of the year....., and has pursued courses in the subjects marked off from the list below, gaining the credit therein recorded; and that he is recommended for admission to Allegheny College. I further recommend that the above student is a person of good moral character.

Signed.....*Principal.*

Unit value.	Subjects.[1]	Length of course—			Number and length of periods of laboratory work included in former.	Textbook used in class and laboratory.	Pass mark used in school ..... Class grade gained in this subject.	Remarks.
		In weeks.	Periods per week.	Length of period.				
.....	English, first year.	.....	.....	.....	.....	.....	.....	.....
.....	English, second year.	.....	.....	.....	.....	.....	.....	.....
.....	English, third year.	.....	.....	.....	.....	.....	.....	.....
.....	English, fourth year.	.....	.....	.....	.....	.....	.....	.....
.....	El. algebra.	.....	.....	.....	.....	.....	.....	.....
.....	Adv. algebra.	.....	.....	.....	.....	.....	.....	.....
.....	Plane geometry.	.....	.....	.....	.....	.....	.....	.....
.....	Solid geometry	.....	.....	.....	.....	.....	.....	.....
.....	Trigonometry.	.....	.....	.....	.....	.....	.....	.....
.....	Latin (grammar).	.....	.....	.....	.....	.....	.....	.....
.....	Latin (Cæsar).	.....	.....	.....	.....	.....	.....	.....
.....	Latin (Cicero).	.....	.....	.....	.....	.....	.....	.....
.....	Latin (Vergil).	.....	.....	.....	.....	.....	.....	.....
.....	Greek (Reader and prose comp.).	.....	.....	.....	.....	.....	.....	.....
.....	Greek (Anabasis).	.....	.....	.....	.....	.....	.....	.....
.....	Greek (Homer)	.....	.....	.....	.....	.....	.....	.....
.....	French, first year.	.....	.....	.....	.....	.....	.....	.....
.....	French, second year.	.....	.....	.....	.....	.....	.....	.....
.....	French, third year.	.....	.....	.....	.....	.....	.....	.....
.....	German, first year.	.....	.....	.....	.....	.....	.....	.....
.....	German, second year.	.....	.....	.....	.....	.....	.....	.....
.....	German, third year.	.....	.....	.....	.....	.....	.....	.....
.....	Ancient history.	.....	.....	.....	.....	.....	.....	.....
.....	Mediæval and modern history.	.....	.....	.....	.....	.....	.....	.....
.....	U. S. history.	.....	.....	.....	.....	.....	.....	.....
.....	English history.	.....	.....	.....	.....	.....	.....	.....
.....	Civics.	.....	.....	.....	.....	.....	.....	.....

[1] Other subjects, not included here for lack of space, are: Drawing (freehand and mechanical), botany, zoology, biology, chemistry, physics, physiography, physiology, geology, other subjects.

It is distinctly understood that the acceptance of certificates is provisional. In case the student's work is not successful in college classes, additional preparatory work may be required. Permission to send students by certificate will ultimately be withdrawn from schools whose students prove to be imperfectly prepared. In all doubtful cases, the teacher is requested to throw the responsibility of the examination upon the college.

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[FORM 1m.]

UNIVERSITY OF ROCHESTER.

CERTIFICATE OF CANDIDATE FOR ADMISSION.

..... No..... Street.....
[Full name of candidate.] [Address.]

PREPARED AT ....
[Name of school] [Location.] [Principal.]

The above to be filled out by the principal.

Candidate notified by the recorder.....191..

Date.....

TO THE FACULTY OF THE UNIVERSITY OF ROCHESTER.

I. Certificate of Moral Character.

I have been personally acquainted with.....for.... years and recommend h.... as a person of good moral character.

.....
Signature of principal.

II. Certificate of Qualification.

I hereby certify that ..... has pursued and completed to the satisfaction of the faculty of.....the studies *not crossed out* in the following schedule; a point being defined as a subject pursued for an entire school year with five exercises a week of not less than 40 minutes each.

Studies.	Points.	Average grade attained.
English	3	
History:		
American and civics	1	
Ancient	1	
English	1	
Mediæval and modern	1	
Mathematics:		
Algebra—Elementary (1), intermediate (½)	1½	
Geometry	1	
Review of algebra and geometry [1]		
Latin:		
Grammar and first year [1]	1	
Cæsar	1	
Cicero and prose composition	1	
Vergil	1	
Greek:		
Grammar and first year [1]	1	
Xenophon and prose composition [1]	1	
Homer	1	
German:		
Elementary (first and second year)	2	
Intermediate (third year)	1	
French:		
Elementary (first and second year)	2	
Intermediate (third year)	1	
Advanced mathematics:		
Advanced algebra		
Solid and spherical geometry		
Plane and spherical trigonometry	½	
Physics, [2] with laboratory notebook for 40 or more experiments	1	
Chemistry, [2] with laboratory notebook for 35 or more experiments	1	
Advanced botany [2]	1	
Advanced zoology [2]	1	
Physical geography [2]	1	
Physiology [2]	½	
Other subjects		

If letters are used to indicate grades, the principal will attach a memorandum explaining their significance.

[1] In Latin grammar and prose composition, Greek grammar and prose composition, algebra and geometry, no certificate will be accepted for work that has not been pursued or reviewed within the year preceding the time of admission. Solid geometry may be substituted for the review of plane geometry and either trigonometry or advanced algebra for the review of algebra.

[2] Laboratory notebooks must be presented for all work in science offered for admission.

In view of the work completed as certified above, and because of my personal knowledge of the ability and maturity of the student named, I consider h.... well fitted to pursue college work in the ..... course at the University of Rochester with profit to the student and credit to the university.

.....
Signature of principal.

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[FORM Ia.]

DARTMOUTH COLLEGE.

CERTIFICATE OF QUALIFICATION FOR ADMISSION TO THE FRESHMAN CLASS.

I, ..., Principal of the .....School in.....
hereby certify that.....
of (home address).....
has been a pupil in this school from.....to.....
and that he was graduated in....., 191..

I certify that the candidate has pursued in this school the courses (and in the amounts) given in the following table, and I further certify that the content of every course with which the candidate is credited includes the prescriptions for that subject as specified in the requirements for admission to Dartmouth College, and that for every unit with which he is credited he has satisfactorily completed work of not less than 120 one-hour exercises or their equivalents.

Subjects.	Units.	Subjects.	Units.
English A		Solid geometry	
English B		Trigonometry	
Greek 2 years		History A (ancient)	
Greek 3 years		History B (European)	
Latin 2 years		History C (English)	
Latin 3 years		History D (American)	
Latin 4 years		Physics	
French (elementary)		Chemistry	
French (intermediate)		Botany	
German (elementary)		Zoology	
German (intermediate)		Physiography	
Spanish (elementary)		Mechanical drawing	
Algebra A_1 and A_2		Total units	
Plane geometry			
Advanced algebra			

Erase subjects for which no credit is given. In certifying Greek and Latin mark only the maximum number of years taken.

I certify that the candidate is of good moral character.

I certify that the candidate ranked number.....in a class of.....pupils.

I certify that the candidate is fully equipped by ability, industry, and knowledge of the subjects for which he has been credited in this certificate to pursue successfully the course leading to the degree of Bachelor of $\frac{\text{Arts}}{\text{Science}}$ in Dartmouth College, and I recommend that he be given credit without examination for the number of units hereby certified towards admission to the freshman class of Dartmouth College in September, 191 .

Signed.....
Principal.

Date, ...

Certificates are accepted only from those schools which have been approved for the certificate privilege of admission.

For admission to the freshman class without condition a candidate must secure credit for fourteen and one-half units.

Candidates should meet the requirements in full; but a certificate will be accepted if it covers eight units of the requirements, and the candidate will be examined on the remainder; if the certificate fails to cover at least eight units of the requirements, the candidate must be examined in full. When a candidate has received his preparation in more than one school, single certificates for less than eight units will be accepted, provided the total certification amounts to eight units.

This certificate should not be given to the candidate, but should be filled out and mailed by the Principal to the Dean of Dartmouth College, Hanover, N. H.

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[Reverse.]

Class of.....

Name, ...; address, ...
School, ...; principal, ...

English.....		Ancient history.....	
Greek.....		European history....	
Latin.....		English history.....	
French.....		American history....	
German.....		Physics.....	
Spanish.....		Chemistry.....	
Algebra A_1 and A_2...		Botany.....	
Plane geometry.....		Zoology.....	
Advanced algebra...		Physiography.....	
Solid geometry.....		Mechanical drawing.	
Plane trigonometry..			

(This page is not to be filled out by the applicant or the school.)

II. AT ENTRANCE.

REGISTRATION OR MATRICULATION.

While matriculation usually means admission to class standing and registration means simply a formal notice of being present at the institution, the terms are so confused in ordinary practice as to become synonymous; consequently no distinction is made in the examples given.

Registration or matriculation frequently involves the use of two forms, one a card giving name and supplementary facts (a personal directory index), the other giving in detail the class to be entered and subjects to be studied (a class assignment card). Some institutions combine the two into a single form.

Examples of the personal index card are that of the Municipal University of Akron (IIa) and the State University of Iowa (IIb). The State University of Kentucky (IIc) uses this card in triplicate, the extra copies being for the dean's office and other supplementary records. Miami University (IId and IIe) accompanies the index card with a class assignment sheet, and De Pauw uses two cards, one (IIf) an index, and the other (IIg) a study card.

Although the majority of institutions show the two-card system, yet, for the small institutions especially, there seems to be no reason why one combined form might not be used. But whether two forms are used or a combined card, the detachable coupon card has certain advantages. In this a coupon is provided for each operation—payment of fees, entering each class, etc. These are detached by the bursar, professor, or other officer. The coupons may be used either for permanent filing or for the temporary information of the various

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officials into whose hands they come. An excellent card of this style is used by the Massachusetts Agricultural College (IIh) for class assignment only. Another, somewhat different in form, is that of the State University of Iowa (IIk).

An examination of forms used by 25 different institutions assembles the following questions for a complete registration record. If it is desirable to use two forms, one for registration and another for class assignment, a division will readily suggest itself.

REGISTRATION CARD.[1]

Part I.—Student's Directory.

1. Name in full.....
2. Home address.....
3. College address.....
4. Place and date of birth..... Age.....
5. Church membership or preference.....
6. Name of parent or guardian.....
7. Address of parent or guardian.....
8. Occupation of parent or guardian.....
9. Preparatory school from which certificate was offered.....
10. (For freshmen only.)
    - A. Entrance subjects offered.....
    - B. Entrance units credited.....
    - C. Entrance conditions.....
11. (For other students.) Subjects on which failed or conditioned.....

Part II.—Class Assignment Blank.

1. College, school, or course.....
2. Class.....
3. Subjects selected in detail.
    - A. Required subjects and elective subjects grouped or marked.....
    - B. Hours per week in each subject.....
    - C. Time and day of each recitation.....
    - D. Value of each in units.....
    - E. Number of the division of the class.....
    - F. Name or signature of the professor or instructor.....
    - G. Location of classroom.....
4. Approval of college officers.....
5. Bursar or treasurer.....
   Fees in detail.....
6. Date..... .....

[1] Some questions asked by one or two institutions seem worthy of consideration, such as: "In what athletic sports do you participate?" "Are your parents college graduates? If so, of what college?" "Are you self-supporting, wholly or in part?" "Have you a scholarship?" One institution gives a brief statement of the marking system used. The two municipal universities submit forms requiring statements of length of time resident in the city, ward, or district. Two institutions provide a special detachable coupon with information for the athletic association, including athletic fees. Among the questions which seem unnecessary on this form are: "Probable future occupation." "Nationality, race, or color of applicant." "Is your father a United States citizen?" "Amount of academic work or reading in addition to required work." "Have you living brothers or sisters?" Some of these questions have been suggested for the preparatory school certificate.

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[FORM IIa.]

THE MUNICIPAL UNIVERSITY OF AKRON.

Buchtel College of Liberal Arts.

REGISTRATION CARD.

Do not fill these blanks { .....
Date.....No.....

Name in full..... (last name first)

Address while in college.....

Date and place of birth.....

From what secondary school graduated.....

When graduated.....

Church preference.....

Parent or guardian (to be filled out by the student):

Name.....

Address.....

Is this address within the corporate limits of Akron?.....

Occupation.....

What is the length of your continuous residence in Akron immediately prior to this date?.....

Where did you reside before coming to Akron?.....

[FORM IIb.]

THE STATE UNIVERSITY OF IOWA, IOWA CITY.

MATRICULATION BLANK.

To be filled out once only: On entrance to the university.

..... Date.

Full name.....

Home address: No. and St. .....City.....

County.....State.....

Date of birth: Month.....Day of month.....Year.....

Place of birth: State or Country.....Nationality.....

Church membership.....or Preference.....

Name of parent or guardian.....

Address: City.....State.....

Occupation of father.....

Name of wife or husband, if married.....

Institutions previously attended (give names or locations):

High school.....Years attended....Year graduated....

Academy..... " " .... " " ....

Normal school.... " " .... " " ....

College..... " " .... " " ....Degree.....

University..... " " .... " " " .....

Iowa City address: No. and St. .....Tel. No. .....

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[FORM IIc.]

[Triplicate copies with perforations for separating.]

STATE UNIVERSITY OF KENTUCKY.

No. .....

....
First name. Second name. Last name.

Date of birth.....
Month. Day. Year.

Home address.....

Street..... No.....

County..... State.....

Name of parent or guardian.....

His occupation.....

His P. O. address.....

Church preference.....

Are you a member? .....

Of what school, if any, are you a graduate? .....

.....

Are you a county appointee? .....

What course do you wish to enter? .....

Lexington address.....

.....1913.
Date.

[FORM IId.]

No. ..... Date....., 191....

MIAMI UNIVERSITY.

MATRICULATION CARD.

The honor system of examination was adopted by the Miami students in January, 1912. No student should enroll who is unwilling to abide by the following pledge:

I pledge myself to support the honor system at Miami to the utmost of my ability, and not only myself to act in accordance with what I conscientiously believe to be its spirit, but also to encourage others to do the same. I make voluntary application for admission as a student in Miami University and pledge myself to abide by and implicitly obey all rules and regulations of said institution, and to endeavor, at all times, to preserve its good name so long as and whenever I shall be a student therein.

.....
Sign in full (Clark, John Christopher.)

Date of birth: Month..... Day..... Year.....

Home address: No. .....Street, City....., State.....

Name of parent or guardian.....

Occupation..... Address.....

Where were you prepared for college? .....

Experience as a teacher.....

Name of last school attended.....

How long did you attend it? .....

The Christian Association also requests the following:

Are you a member of any church? ..... What church do you attend? .....

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[FORM IIe.—MIAMI UNIVERSITY.]

FRESHMAN ELECTION SHEET.

Entrance Credits.

English		Physical geography		Latin	
History		Agriculture		Greek	
Mathematics		Astronomy		Spanish	
Chemistry		Geology		German	
Physics		Physiology		French	
Botany		Drawing		Domestic science	
Zoology		Manual training		Commercial geography	

Entrance conditions .....

Conditional advanced standing .....

Probable future occupation .....

Check here.		Section.	Hours.	(Indicate hour of day.) M.	Tu.	W.	Th.	F.	S.	Instructor.
	Required studies:									
.....	English 1	.....	3	.....	.....	.....	.....	.....	.....	.....
.....	Mathematics 1	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Languages:									
.....	Latin	.....	4	.....	.....	.....	.....	.....	.....	.....
.....	Greek	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	French	.....	4	.....	.....	.....	.....	.....	.....	.....
.....	German	.....	4	.....	.....	.....	.....	.....	.....	.....
.....	Spanish	.....	4	.....	.....	.....	.....	.....	.....	.....
	History:									
.....	History 2 (Europe)	.....	3	.....	.....	.....	.....	.....	.....	.....
.....	History 1 (American)	.....	3	.....	.....	.....	.....	.....	.....	.....
.....	Latin 8 (Roman)	.....	1	.....	.....	.....	.....	.....	.....	.....
	Sciences:									
.....	Botany 1	.....	4	.....	.....	.....	.....	.....	.....	.....
.....	Chemistry	.....	4	.....	.....	.....	.....	.....	.....	.....
.....	Geology 1	.....	4	.....	.....	.....	.....	.....	.....	.....
.....	Physics 1	.....	4	.....	.....	.....	.....	.....	.....	.....
.....	Zoology 1	.....	4	.....	.....	.....	.....	.....	.....	.....
.....	Freshman lecture	.....	½	.....	.....	.....	.....	.....	8:30	.....
.....	Physical training	.....	1	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

...., 191....

Name of student in full, last name first. Date.

Approved: .....

Adviser.

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[FORM III.]

DEPAUW UNIVERSITY.

[Card with two stubs.]

DEPAUW UNIVERSITY STUDY CARD.

Name..... Second semester, 1913–14.

No. ..... COLLEGE OF LIBERAL ARTS. Class.....

Department.	Course.	Hours.
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
Total hours.....	.....	.....

FEES.

Academy, incidental	$16.00
College, incidental	30.00
Physical culture	2.00
Diploma	5.00
Laboratory:	
Biology	4.00
Chemistry, except courses 3, 4½, and 9	7.50
Physics, except courses 5, 6, 7, and 8	2.00
Extra hours	2.00
Music and art per hour	1.50
Total fees	

[Reverse.]

ENTRANCE DEFICIENCIES.

.....
.....
.....
.....

REQUIRED WORK:
Rhetoric.
Physical culture.
Group I.
Group II.
Group III.
Group IV.

MAXIMUM.

INELIGIBLE FOR READMISSION.

INELIGIBLE FOR FULL HOURS.

[Detachable stub.]

DEPAUW UNIVERSITY.

BURSAR'S STUB.

SECOND SEMESTER, 1913–14.

No. .....

Fees due from

.....

Total amount $.....

Payable at the Central National Bank.

This stub must be presented as an admission ticket to all athletic contests.

[Detachable stub.]

DEPAUW UNIVERSITY.

STUDENT'S RECEIPT.

SECOND SEMESTER, 1913–14.

No. .....

Fees received from

.....

Total amount $.....

Keep this receipt.

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[FORM IIg.]

To be used by ALL students.

DEPAUW UNIVERSITY REGISTRATION CARD.

Date....., 191....

Name in full.....
First name. Middle name. Last name.

Parent (or guardian).....

Permanent (home) address:

Street.....

City (or town).....

County.....

State.....

Greencastle address.....
(Give both street and number.)

School of university.....

Religious denomination of which a member.....

Religious denomination of which an adherent.....

[FORM IIh.]

MASSACHUSETTS AGRICULTURAL COLLEGE.

[Card in two parts, with perforations.]

[Part one.]

ELECTIVES—FIRST SEMESTER. M. A. C.

Name of student.....

MAJOR..... CLASS 191....

Name of parent or guardian.....

Address of parent or guardian.....

Course name.	Course.		Laboratory fee, if any.
	No.	Cr.	

TO THE ADVISER:

In entering the courses above be good enough to see that ALL courses are entered in the ORDER given in the catalogue, courses in agriculture coming first, horticulture next, etc.

THIRTY credits are controlled by the adviser, the balance of credits of the junior and senior years being optional with the student, subject to college regulations.

Approved, June ..... 19....

.....Adviser.

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[Part two.]

TO THE STUDENT:

Enroll for each course by writing your name and *class* as well as name and number of course in the spaces provided below. Give catalogue name and number of course; e. g., French 5, Botany 12.

Courses in military science should be included below.

Name of student..... *Class*.....

Course, name, and number.....

Name of student..... *Class*.....

Course, name, and number.....

Name of student..... *Class*.....

Course, name, and number.....

Name of student..... *Class*.....

Course, name, and number.....

Name of student..... *Class*.....

Course, name, and number.....

Name of student..... *Class*.....

Course, name, and number.....

Name of student..... *Class*.....

Course, name, and number.....

Name of student..... *Class*.....

Course, name, and number.....

Name of student..... *Class*.....

Course, name, and number.....

Name of student..... *Class*.....

Course, name, and number.....

Name of student..... *Class*.....

Course, name, and number.....

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[FORM IIk.]

THE STATE UNIVERSITY OF IOWA, IOWA CITY.

[Form of registration card used in the University of Iowa, but varied to suit the needs of the colleges.]

MEMORANDUM.

....., 191....

being entitled to ..... preparatory units, as follows:

1. Greek.....	5. English.....	9. Science.....
2. Latin.....	6. History.....	10. Elective.....
3. French.....	7. Algebra.....	.....
4. German.....	8. P. & S. geometry.....	.....

may be registered in the ..... course in the College of Liberal Arts.

Conditions:

1.		Units.
2.		
3.		

University examiner.

THE STATE UNIVERSITY OF IOWA.
Iowa City.
TUITION.

.....

.....

City address..... Telephone No.....

College of Liberal Arts.

$10.00, Tuition for the { First semester. / Second semester. / Summer session.

$10.00, Matriculation fee.

THE STATE UNIVERSITY OF IOWA.
Iowa City.
PERMIT TO REGISTER.

....., 191....

To the registrar:

.....

being entitled to ..... preparatory units, and having fulfilled all other requirements for admission, may be registered as a student in the College of Liberal Arts..... course,.....year, upon payment of the matriculation fee and tuition.

Matric. fee paid:.....Amt., $10.00

Tuition paid:.....Amt.,

Secretary.

University examiner.

N. B.—Present this card first to the secretary, and then to the registrar.

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$20.00 THE STATE UNIVERSITY OF IOWA,

Iowa City.

RECEIPT.

.....

Received of.....Ten Dollars, matriculation fee, and Ten Dollars, tuition for the ..... semester ..... in the College of Liberal Arts.

_____ Secretary.

[Reverse of registration stub.]

Preparatory units:

1. Greek.....	5. English.....	9. Science.....
2. Latin.....	6. History.....	10. Elective.....
3. French.....	7. Algebra.....	.....
4. German.....	8. P. & S. geometry.....	.....

Conditions:

1. _____	____ Units.	.....
2. _____		
3. _____		_____ University examiner.

III. DURING THE COLLEGE COURSE.

After matriculation the number and variety of forms used will depend on the individual institution. Examples of some of the many different forms are shown in Appendix D. Of all records taken during the course, the student's class records, usually compiled at the end of each semester, are most important. The permanent record blank is designed to hold these.

PERMANENT RECORD FORM.

This form should contain, besides the class records, certain other fundamentals—name and personal history, record of admission and precollegiate work, and possibly a brief alumni record. This is one of two indispensable record forms, the other being the preparatory school certificate.

Three distinct types of permanent records are used. A large number of institutions follow the old custom of keeping their permanent records in bound books; others are using a card system because of its convenience, while the loose-leaf book record is popular for the same reason, having the further advantage of compactness where a large number of records are kept. Some institutions use several cards or records, an extreme case being where a different card is used for each student each year. In general, however, the academic record of each student is kept on one card or ledger sheet.

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A brief comparison of a few of the forms in actual use perhaps will be of service.

Randolph-Macon Woman's College (III a) uses both sides of a loose-leaf ledger sheet and finds room for a brief alumnæ record. The University of Rochester (III b) also uses a loose-leaf sheet and gets all its information on one page; it substitutes a brief abstract of the financial relations of the student to the institution for the alumni record. The University of Kansas (III c) also uses one page of a loose-leaf ledger sheet, obtaining considerable reduction in size, but omitting both the alumni and financial records.

Among the card forms, that of the University of Cincinnati (III d) does not divide the course into years, although in practice this is done by rulings under the subjects written in for each year. While this form economizes space, it seems hardly as precise as the form used by Harvard College (III e). The use of both sides gives space for a very complete record. The form of Harvard College (III e) shows an excellent arrangement for class record. It also calls for a personal history, but for no financial, alumni, or student activity record. The reverse side of the form is not used. The State University of Iowa (III f) does use the reverse for some of these questions and shows the same study arrangement as the University of Cincinnati (III d). Northwestern University (III g) shows an arrangement of studies for five years, thus covering a possible post-graduate year. None of the others shows this, and yet a single graduate year is becoming quite common, while five-year courses, especially in engineering, are well established. De Pauw University (III h) and the College of Wooster (III k) illustrate the use of smaller cards.

From this comparison it is seen that an excellent form can be devised using a card about 8½ by 11¾ inches, a standard size. For loose-leaf ledger purposes a longer form will be found more convenient; it should be printed leaving a wide binding margin and may be as large as 11 inches in width and 15 or even 20 inches in length. The use of both sides of either card or page gives much more room and seems advisable.

A comparison of forms used by over 25 different institutions indicates that a permanent record form may appropriately give the following information; in spreading it on the card it is suggested that the Harvard (III e) and Northwestern (III g) forms might serve for a basis of arrangement, the personal history and class records being on the front, and the reverse side used for the financial, student activity, and alumni records.

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PERMANENT RECORD FORM.

(Use a different color for each college of a university.)

[Front.]

1. Name in full. Class.
2. Home address.
3. Date and place of birth. Age.
4. Church affiliation.
5. Name of parent or guardian.
6. Address of parent or guardian.
7. Occupation of parent or guardian.

Preparatory school.

1. Name and address of preparatory school.
2. Name and address of other schools.
3. Preparatory subjects in detail, giving for each—
   - (*a*) Value in units or hours.
   - (*b*) Credit for certification.
   - (*c*) Credit by examination.
   - (*d*) Conditions—when removed.
4. Subjects and credits for advanced standing.

Collegiate record.

1. College.
2. Course.
3. Degree.
4. Date of matriculation.
5. Date of graduation.
6. If nongraduate, date of withdrawal.
7. Honors, grade, etc., for the course.
8. Scholarships, fellowships, prizes, loans.
9. Nonacademic honors—fraternity, clubs, athletics.
10. Class record.

    Arrange studies in five columns, one for each year.

    List studies in detail and show for each—
    - (*a*) Number of each subject-course as per catalogue.
    - (*b*) Hours per week.
    - (*c*) Credit in college units.
    - (*d*) Grade obtained.
    - (*e*) A brief statement of major and minor group subjects on which course was based.

[Reverse side.]

Financial record.

Brief summary of ledger, showing amounts paid by student in course.

Special college records.

If desired, records of scholarships, prizes, etc., and nonacademic honors—fraternity, athletics, etc.—(collegiate records 8 and 9) may be given here in more detail and omitted from the front page.

Alumni record.

1. Address.
2. Occupation.
3. Married to ..... (*a*) Date ..... (*b*) Address .....
4. Children.
5. Honors.
6. Death—date, place, and place of burial.

In case of transfer to another institution an abstract of the permanent record form furnishes the information necessary for advanced standing. Printed abstracts are in common use, but need not be shown since in general the form is an exact duplicate of the permanent record form.

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[FORM IIIa.]

RANDOLPH-MACON WOMAN'S COLLEGE.

[Loose leaf ledger page, 11 by 16½ inches; two sides used.]

STUDENT'S RECORD.

Name of student (in full).....

Address: P. O., ...*State*.....

Address changed to P. O., ...*State*.....

Date of birth.....*Place of birth*.....

Parent or guardian.....*Profession*.....

Address: P. O.,.....*State*.....

Church affiliation.....*Member?*.....

Date of enrollment....; *of withdrawal*.....

RECORD AFTER LEAVING COLLEGE.

Address: P. O.,.....*State*.....

Address changed to P. O., ...*State*.....

Occupation.....

Married to.....

Date.....

Address.....

Prepared for college in.....*School, place*.....

Entrance requirements satisfied by—

Subjects.	Certificate.	Examination.	Conditions.	Removed.	Signature of examiner.
English					
Mathematics					
History					
Latin					
Greek					
Modern language					
Science					

Admission to advanced standing.		Remarks.
Courses.	Credited by—	

[Reverse.]

NAME OF STUDENT.....

Courses.	Hours in course.	First report.			Second report.			Examination.	Combination.	Third report.			Fourth report.			Examination.	Combination.	Sessional standing.	Hours credit.	Signature of instructor.
		Grade.	Absences excused.	Absences unexcused.	Grade.	Absences excused.	Absences unexcused.			Grade.	Absences excused.	Absences unexcused.	Grade.	Absences excused.	Absences unexcused.					
SESSION 19 -19 .																				
Physical culture																				
Roll call																				

GRADE EQUIVALENTS: Below 70, F; 70–75, P; 75–80, E; 80–85, D; 85–90, C; 90–95, B; 95–100, A.

[Schedule repeated three times, once for each year.]

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[FORM IIIb.]

UNIVERSITY OF ROCHESTER.

[Loose leaf ledger page, 16 by 12½ inches.

NAME .....

Date of birth.	Yearly average. I. III. II. IV.	Course average.	Class.	Course.	Date of graduation.	Degree.

Name, occupation, and address of parent or guardian.	Institution last attended.	Time of entrance.	Method of entrance.

ADMISSION.

Detailed statement of conditions.	Subject.	Result.	Time for removing condition.	Subject.	Result.	Time for removing condition.	Subject.	Result.	Time for removing condition.	Subject.	Result.	Time for removing condition.
	HISTORY:			German, first year			MATHEMATICS:			SCIENCE:		
	Ancient			German, second year			Algebra			Botany		
	English			German, third year			Elementary			Chemistry		
	Medieval and modern			Greek grammar			Intermediate			Physics		
	American and civics			Composition			Advanced			Physiography		
				Xenophon			Review			Physiology		
	LANGUAGE:			Homer			Geometry			Zoology		
	English A			Latin grammar			Plane					
	English B			Composition			Solid					
	French, first year			Caesar			Review					
	French, second year			Cicero			Trigonometry					
	French, third year			Virgil								

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TREASURER'S INDEX.

Journal. Year.	Journal. Page.

Ledger page.

FRESHMAN YEAR.

Subject.	Autumn. Course.	Autumn. Year.	Autumn. Hours.	Autumn. Mark.	Winter. Course.	Winter. Year.	Winter. Hours.	Winter. Mark.	Spring. Course.	Spring. Year.	Spring. Hours.	Spring. Mark.
French												
German												
Greek												
Latin												
Mathematics												
Mechanical drawing												
Rhetoric												
Physical training												

Honors

Remarks

SOPHOMORE YEAR.

Subject.	Autumn. Course.	Autumn. Year.	Autumn. Hours.	Autumn. Mark.	Winter. Course.	Winter. Year.	Winter. Hours.	Winter. Mark.	Spring. Course.	Spring. Year.	Spring. Hours.	Spring. Mark.
Biology												
Chemistry												
English												
French												
Geology												
German												
Greek												
Latin												
Mathematics												
Mechanical drawing												
Physics												
Physical training												

Honors

Remarks

FACULTY RECORD INDEX.

Year.	Page.

JUNIOR YEAR.

Subject.	Autumn. Course.	Autumn. Year.	Autumn. Hours.	Autumn. Mark.	Winter. Course.	Winter. Year.	Winter. Hours.	Winter. Mark.	Spring. Course.	Spring. Year.	Spring. Hours.	Spring. Mark.
Art												
Astronomy												
Biology												
Chemistry												
Economics												
English												
French												
Geology												
German												
Greek												
History												
Italian												
Latin												
Mathematics												
Philosophy												
Physics												
Rhetoric												
Spanish												

Honors

Remarks

SENIOR YEAR.

Subject.	Autumn. Course.	Autumn. Year.	Autumn. Hours.	Autumn. Mark.	Winter. Course.	Winter. Year.	Winter. Hours.	Winter. Mark.	Spring. Course.	Spring. Year.	Spring. Hours.	Spring. Mark.
Art												
Astronomy												
Biblical literature												
Biology												
Chemistry												
Economics												
English												
French												
Geology												
German												
Greek												
History												
Italian												
Latin												
Mathematics												
Philosophy												
Physics												
Spanish												

Honors

Remarks

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[FORM IIIc.]

UNIVERSITY OF KANSAS.

School..... Name of parent or guardian..... Name in full..... Residence.....
Date of matriculation..... Address..... Date of birth..... Degree obtained.....
Preparatory school..... Occupation..... Graduated.....

ENTRANCE SUBJECTS.	FRESHMAN.	Catalogue number.	Credit hours.	Grade.	Year.	SOPHOMORE.	Catalogue number.	Credit hours.	Grade.	Year.	JUNIOR.	Catalogue number.	Credit hours.	Grade.	Year.	SENIOR.	Catalogue number.	Credit hours.	Grade.	Year.
Elementary algebra.....(1½)																				
Advanced algebra.....(½)																				
Plane geometry.....(1)																				
Solid geometry.....(½)																				
Plane trigonometry.....(½)																				
History:																				
Greek and Roman.....(1)																				
Mediæval and modern.....(1)																				
English.....(1)																				
American.....(1)																				
Economics.....(½ or 1)																				
Civics.....(½)																				
English.....(1, 2, 3, 4)																				
French.....(1, 2, 3, 4)																				
Spanish.....(1, 2)																				
German.....(1, 2, 3, 4)																				
Greek.....(1, 2, 3, 4)																				
Latin.....(1, 2, 3, 4)																				
Physics.....(1)																				
Physical geography.....(½, 1)																				
Chemistry.....(1)																				
Botany.....(1)																				
Zoology.....(1)																				
Physiology.....(1)																				
Biological science.....(1)																				
Miscellaneous.....(½, 1, 2, 3)																				
CONDITIONS. / REMOVED.																				

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[FORM IIId.]

UNIVERSITY OF CINCINNATI.

[Card 9 by 11 inches, both sides.]

Registration numbers:

.....

..... Name.....

..... Candidate for.....Degree.

.....

Course.	1st sem.			2d sem.		Course.	1st sem.			2d sem.	
	Hrs.	Gr.		Hrs.	Gr.		Hrs.	Gr.		Hrs.	Gr.

[Reverse.]

Name.....

Parent or guardian.....

Address—City.....

Out of town.....*State*.....

Date of entrance.....

Entered:

On diploma from.....

On examination.....

As special student.....

	ENTRANCE CONDITIONS.
Major.....	.....
Minor.....	.....

Denominational preference.....

191.... *Removed condition in*.....*for*.....

.....

.....

.....

.....

.....

.....

.....

Remarks:

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[FORM IIIe.]

HARVARD COLLEGE.

[Card, one side, 8½ by 11¼ inches.]

CLASS OF.....

Record of..... Born..... School.....

Candidate for.....degree. Received.....degree. at Commencement.....

Admitted.	Record.				Year 19—.					Year 19—.					Year 19—.					Year 19—.				
	Elem.		Adv.			Grades.					Grades.					Grades.					Grades.			
No.	Grades.	Points.	Grades.	Points.	Studies.	Courses.		Half courses.		Studies.	Courses.		Half courses.		Studies.	Courses.		Half courses.		Studies.	Courses.		Half courses.	
Subject.						1	2	1	2		1	2	1	2		1	2	1	2		1	2	1	2
English A																							
English																							
Greek																							
Latin																							
German																							
French																							
History																							
Algebra																							
Geometry (plane)																							
Geometry (solid)																							
Geometry (3 point).																							
Log. and trigonometry.																							
Physics																							

Grade.	First year.	Second year.	Third year.	Fourth year.	Total.
A					
B					
C					
D					
Total					

Dropped from... Date....
" " ... " ....
" " ... " ....
" " ... " ....
Restored to... Date....
" " ... " ....
" " ... " ....
" " ... " ....

Discipline:
.....
.....

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Chemistry.....			Freshman courses in columns numbered 1, other courses in columns numbered 2.			
		Courses for year.				
		Courses total.				
		Courses deficient.				
Conditions.		Financial aid	Group scholar	Group scholar	Group scholar	
Elementary.	Advanced.		Scholarship:	Scholarship:	Scholarship:	
		Names and address of parents (* indicates death).	Voted by the administrative board.		Rating of the committee on admission.	
		Street.....				
		City (or town).....				
		State.....				
		Guardian (if any):				
		Send reports to:				

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[FORM IIIf.]

THE STATE UNIVERSITY OF IOWA.

[Card, one side, 8¼ by 11¼ inches.]

Iowa City.

NAME..... COLLEGE.....

Permanent address:
St. and No.....
City.....
County.....
State.....
Date of birth.....
Place of birth.....
Nationality.....
Church member or preference.....
Name of parent or guardian.....
Address.....
Occupation of father.....
Name of wife or husband.....
Address.....

Institutions previously attended.	Yrs.	Class.	Degree.

Entrance credits.		Fees.	
		Date.	Amount.
Latin			
French			
German			
English			Matr. $10.00
History, etc			Tui.
Algebra			
P. and S. geometry			
Science			
Elective			

Entrance conditions.		Date of removal.
	Cr.	

SUBJECT.	1st sem.		2d sem.		SUBJECT.	1st sem.		2d sem.	
	Hrs.	Gr.	Hrs.	Gr.		Hrs.	Gr.	Hrs.	Gr.

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[FORM III g.]

NORTHWESTERN UNIVERSITY,

College of Liberal Arts.

STUDENT'S RECORD CARD.

[Card, one side, 9¼ by 11½ inches.]

Name..... *Degree*..... *Honors*..... *Year*.....

Home address..... *Name of parent or guardian*.....

Date of birth..... *Admitted from*..... *Date of admission*.....

ENTRANCE CREDITS.	UNITS.
English (a), (b), (c)	
Mathematics, Algebra (a) (b)	
Plane geometry	
Greek 6, 7, 8	
Latin 9, 10, 11, 12	
French 13, 14, 15	
German 16, 17, 18	
Spanish 19, 20	
Mathematics 21, Algebra (a)	
Trigonometry (b)	
Solid geometry (c)	
Physiography 22	
Physics 23	
Botany 24	
Zoology 25	
Chemistry 26	
History 27, 28, 29, 30	
Civil government 31	
Political economy 32	
Commercial geography 33	
Commercial law 34	
Physiology 35	

YEARS OF ATTENDANCE.	191 –191 .			191 –191 .			191 –191 .			191 –191 .			191 –191 .			Transferred.
Department.	Course.	Credit-Grade. 1st sem.	Credit-Grade. 2d sem.	Course.	Credit-Grade. 1st sem.	Credit-Grade. 2d sem.	Course.	Credit-Grade. 1st sem.	Credit-Grade. 2d sem.	Course.	Credit-Grade. 1st sem.	Credit-Grade. 2d sem.	Course.	Credit-Grade. 1st sem.	Credit-Grade. 2d sem.	
English																
Mathematics																
Economics																
History																
Philosophy																
Psychology																
Greek																

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| OTHER SUBJECTS. | | |

[FORM IIIh.]

DEPAUW UNIVERSITY.

[Card, one side, 7½ by 9½ inches.]

Name of student.....

Name of parent or guardian..... Address.....

ENTRANCE.	DEPARTMENT.	Year.	Term.	Course.	Hours.	Grade.	DEPARTMENT.	Year.	Term.	Course.	Hours.	Grade.
English composition												
English literature												
Latin grammar												
Latin, Cæsar												
Latin, Cicero												
Greek												
French												
German												
Algebra												
Geometry, plane												
Geometry, solid												
History, U. S												
History, general												
Electives												

[25 blank spaces for subjects of advanced grades.]

Graduated, 19...., with degree of.....

P represents a pass; P PLUS a creditable pass.

Registrar.

[FORM IIIk.]

[Obverse.]

COLLEGE OF WOOSTER.

[Card, two sides, 7½ by 9½ inches.]

RECORD SHEET.

Name.....
Recommended by.....
Date of birth.....
Father's name.....
Guardian.....
Father's occupation.....
Church membership.....

Withdrawals—Reentrance.

Credits from elsewhere.

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Special credits, substitutes, etc.

Prepared at.....

Date of entrance.....

Activities, experience, honors, etc.

Y. $\frac{W.}{M.}$ C. A. cabinet.....
Other such office.....
Literary society.....
Other club.....
Forensics.....
Athletics.....
Music.....
Class office.....
College publication.....
Teaching experience.....
Other responsible office.....
Self-help.....
Honors.....
Prizes.....
General remarks.....
.....
.....
.....

[Reverse.]

Name..... Prepared at..... Degree sought.....

Entrance units.		College credits.	Freshman 19—19—.				Sophomore 19—19—.				College credits.	Junior 19— 19—.				Senior 19— 19—.				Totals.
			1st sem.		2d sem.		1st sem.		2d sem.			1st sem		2d sem		1st sem		2d sem		
English	3	Biblical instruction.	1	2B	....		.....		.....		Biblical instruction.	....		....		....		....		....
French	2	Biology	....		....		.....		.....		Biology	....		....		....		....		....
German	...	Botany	....		....		.....		.....		Botany	....		....		....		....		....
Greek	...	Chemistry	1	4C	....		.....		.....		Chemistry	....		....		....		....		....
Latin	4	Education	....		....		.....		.....		Education	....		....		....		....		....
Mathematics:		English literature.	....		....		.....		.....		English literature.	....		....		....		....		....
Alg	1½	French	3	4D	....		.....		.....		French	....		....		....		....		....
Pl. G	1	Geology	....		....		.....		.....		Geology	....		....		....		....		....
S. G	½	German	....		....		.....		.....		German	....		....		....		....		....
History:		Greek	....		....		.....		.....		Greek	....		....		....		....		....
English	1	History	....		....		.....		.....		History	....		....		....		....		....
Ancient	...	History of art	....		....		.....		.....		History of art	....		....		....		....		....
General	...	Latin	....		....		.....		.....		Latin	....		....		....		....		....
Mediæval	...	Mathematics	1	3A	....		.....		.....		Mathematics	....		....		....		....		....
Modern	...	Oratory	....		....		.....		.....		Oratory	....		....		....		....		....
U. S	...	Philosophy	....		....		.....		.....		Philosophy	....		....		....		....		....
Civics	½	Physics	....		....		.....		.....		Physics	....		....		....		....		....
Science:		Political science.	....		....		.....		.....		Political science.	....		....		....		....		....
Chem	1	Rhetoric	....		....		.....		.....		Rhetoric	....		....		....		....		....
Phys	...	Music	....		....		.....		.....		Music	....		....		....		....		....
Bot	...		....		....		.....		.....			....		....		....		....		....
Zool	...	Examination	....		3		.....		.....			....		....		....		....		....
Ph. G	½	Physical education.	1	1A	....		.....		.....		Physical education.	....		....		....		....		....
Physiology	...	Total for semester.	....	14	....		.....		.....		Total for semester.	....		....		....		....		....
M. Dr	...	Complete total	....	17	....		.....		.....		Complete total	....		....		....		....		....
Agr	...																			
Total	15																			
Condition	...																			
Made up	...																			

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IV. ALUMNI RECORDS.

Few institutions seem to attach much importance to their alumni records, yet the keeping of alumni records is becoming more important every year; a series of main topics has therefore been suggested. By placing these on the permanent record form, the complete history of each student is collected in compact form on one record; if, however, it should prove to be more convenient, the alumni record can be entered in a simple card index file; this latter method may be preferable when there is a special official, such as an alumni secretary, to handle the records. A postal inquiry addressed to the last available address of each alumnus will usually keep this record up to date.

RÉSUMÉ.

The forms outlined and discussed in this bulletin are, in the order of their appearance in the student's academic career:

1. The application blank.
2. The preparatory school certificate.
3. Registration forms—Student directory.
   Class assignment.
4. Miscellaneous forms for daily record and care of students.
5. Permanent record form. This includes the information given in 2, 3, and 6.
6. Alumni record, included in 5.

It will be noted that the preceding forms are primarily for the regular undergraduate students, and that no provision has been made for special classes, such as graduate, irregular or special, short or winter term, and extension students. Undoubtedly an institution will find it advisable to use a special blank for one or more of these classes, but the variations from the standard forms will suggest themselves.

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APPENDICES.

Appendix A.—Outline of systems used by Randolph-Macon Woman's College, Northwestern University, and Massachusetts Institute of Technology.
Appendix B.—Miscellaneous forms:
(*a*) Remission of tuition fees, University of Cincinnati.
(*b*) and (*c*) Application for advanced standing, University of Michigan (2 forms).
(*d*) Change of registration, Earlham College.
(*e*) Matriculation card, Pennsylvania State College.
(*f*) Class report of examination to the registrar, Pennsylvania State College.
(*g*) Notice of low standing, Pennsylvania State College.
(*h*) Instructor's report card of changes in class enrollment (not attendance), Massachusetts Institute of Technology.
(*i*) Report of absence by instructor, University of Wooster.
(*k*) Notice of absence to instructor, University of Wooster.
(*l*) Class grade report, Kentucky State University.
(*m*) Class list, Kentucky State University.
(*n*) Report to preparatory schools of Kentucky of grades of admitted students.
(*o*) Class standing report, Allegheny College.
(*p*) Notice of failure, Allegheny College.
(*q*) Personal grade card, Massachusetts Institute of Technology.
(*r*) Notice of personal interview, University of Kansas.
(*s*) Application for graduation, DePauw University.
(*t*) Application for permission to carry extra hours, DePauw University.

APPENDIX A.—OUTLINE OF CERTAIN SYSTEMS.

Randolph-Macon Woman's College.

As soon as the application for admission is received, an endeavor is made to secure as full and detailed statement as possible of the credits offered for entrance (using the preparatory school certificate)—these being certified by the principal of the preparatory school. The registrar estimates the value of each unit, in every instance requiring at least the minimum of 13 units to be offered. At the opening of the fall term these certificates of preparation are submitted to the committee on matriculation, which is composed of the heads of the several departments and the principal instructors; this committee, in turn, interviews each applicant personally and separately, and the credit accorded her in each subject, whether by certificate or examination, is entered on the matriculation ticket (registration and class assignment blank) by the instructor in that department. The matriculation ticket and certificate are then returned to the registrar's office, and the credits so given are entered on the student's record, these three forms—the certificate of preparation, the matriculation ticket, and the student's record—being our official records.

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Northwestern University—College of Liberal Arts.

Description of Printed Forms Used in the Registrar's Office.

Before the days of registration the prospective student is urged to forward the matriculation blank properly filled out on the first page, and the certificate of entrance credits made out and signed by the principal of the high school. He is also urged to read carefully the "Undergraduate's Manual."

On the day of registration the freshman goes first to the library, where he meets the president of the university and is given a time appointment with the dean of the college. These appointments are three minutes apart. If the matriculation blank has not been sent previous to the student's coming, he fills that out before meeting the dean. From the certificate which has been formerly submitted a transcript memorandum of entrance credit is written. On this memorandum the dean assigns an adviser-professor, to whom the student then goes. In company with the adviser the program of studies is arranged and recorded in duplicate. After this program is approved by a committee—to prevent entrance to a section already overcrowded, or enrollment for more than three recitations in a half day—it is then approved by the registrar and the bill is issued. In the registrar's office the program is copied on a registration card (different colors being used for different years) and a class card is made out for each course and sent to the proper instructor before the time of the first recitation. On the colored card the student's absences are recorded in the registrar's office. The registration is finally copied on the large card, which is the permanent record of a student's work.

The program of a sophomore, or upper-class man, differs from that above mentioned in that he takes from the registrar's office to his adviser a blank on which the registrar has indicated certain prescribed studies which ought to be included in the registration. The adviser has received from the registrar's office a record of the student's previous work. With the help of this record it is possible to encourage the registration for prescribed studies in their proper place.

Absences are reported by instructors to this office every week. When a student has recorded against him absences in a course amounting to one-eighth of the class exercises in that course he receives a warning. When his absences amount to more than one-eighth, but not more than one-sixth of the class exercises in the course, he is notified by the registrar's office that he is due for an additional examination, and if the absences exceed one-sixth he is notified that his registration in the course is canceled, and notice is also sent to his instructor. When a student's work is reported unsatisfactory, he is notified and asked to confer with his instructor at once. When a student wishes to change his program he secures from the registrar's office a blank, on which the changes are recorded and necessary signatures secured. The blank is then filed at the registrar's office and instructors are notified of courses dropped and of courses entered by receiving class cards. At the close of the semester instructors report grades to the registrar's office, and from the registrar's office the semester record of each student is sent to his parents or guardian.

Each student is required to designate the department which he chooses as his major at the beginning of his third year. At the close of the junior year a student expecting to graduate in the following year is required to file with the registrar a senior petition. A student registering from another department of the university brings to the registrar's office a recommendation from the department in which he has his primary registration. The record of a student transferring to another school is furnished on the certificate of standing.

Massachusetts Institute of Technology.

Each student fills out an *attendance card* according to the course he elects. *Roll cards* supplement the attendance card, and are kept in the registrar's office and used for a card catalogue for all courses. The *address card* is used at the information office for the address of students, and gives the tabular view of their exercises, which shows where they may be found during the school hours. The *bursar's card* is used by him.

The attendance card, which is a petition for each student for admission to the subjects he desires, is approved by the registrar, and then the roll cards are checked to agree with each card, by assistants. These roll cards are then separated into subjects (it is found convenient to use numbers to represent these), and then each subject is separated into its various sections, if the class in this subject is divided into sections. The rolls are written by hand, or by the typewriter on paper, and these rolls are corrected by the instructors, by use of the *roll correction card;* a new roll is issued every month.

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Changes in the attendance card after the card is approved are made by the use of petitions to the faculty.

Records are returned by instructors on the alphabetical lists. The names of students entitled to records are underlined in red ink. There are formal and informal reports.

Informal reports are made for students in the first two years, at the end of the first five and first ten weeks of the two terms. Lists corresponding to these alphabetical lists are gummed and pasted into record books, that are ruled to agree with the spacing of the alphabetical lists, where these informal records are posted.

Formal records are returned on the same alphabetical lists, but these records are kept in a different way. The names of the students are separated into years, and for the three upper classes are again separated into courses. The choice of course is not made by first-year students until after the first term, and the courses do not differ enough in the second term to warrant the separation. The names of students are written, 30 on a page, at the left, and the subjects are written across the top. A copying ribbon is used on the typewriter, so that immediately before the faculty meeting to consider these records a copy can be made for the head of each department.

Reports are sent to students on a blank similar to the attendance card in form.

Various printed forms and notes are used in regard to the absence of students from exercises, and notices requesting them to consult various officers.

Entrance records are kept on cards, and students register for the entrance examinations on a special card, and gummed labels are attached to these cards as well as to all examination books. A different color is used for each candidate, such as preliminary, final, complete, and partial. The color of the label, together with the name on it, assists greatly with the rapid separation of the papers immediately after the examination, in the registrar's office. These are examined to correspond with the examination book, and it is customary to separate the books into groups, as preliminary, final, complete, and partial, and dividing each group, when necessary, into smaller groups, for examination. The records are returned on these written lists and are entered on the attendance cards. These are kept until the student enters the institute, and from these the entrance record is recorded on the permanent record of the student.

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APPENDIX B.—MISCELLANEOUS FORMS.

[FORM Ba.]

University of Cincinnati.

Application for the Remission of Tuition Fees.

The undersigned, claiming that ..... is a bona fide citizen of the city of Cincinnati, requests that ..... be matriculated without payment of tuition.

1. Name of applicant in full.....
2. Date of birth ..... day of ....., 18....
3. Place of birth. City ....., State ....., Country.....
4. Name of parents living.....
5. Residence of parents.....
6. Are your parents native-born or naturalized citizens?.....
7. When did you first come to Cincinnati?.....
8. What school or college, if any, have you attended since your removal to Cincinnati?.....
9. (*a*) When did you enter such school or college?.....
   (*b*) How long did you attend same?.....
   (*c*) If such school or college had been located elsewhere, would you have come to Cincinnati?.....
10. (*a*) Did you come to Cincinnati primarily to obtain an education?.....
    (*b*) If not, state fully the purposes for which you came to Cincinnati.....
11. When you removed to Cincinnati was it your intention to remain in Cincinnati permanently? .....
12. Had you any intention of ever returning to your former place of residence? .....
13. (*a*) Have you ever returned to your former place of residence since your removal to Cincinnati? If so, how often, and during what periods and for what purposes?.....
    (*b*) Where and how do you spend your vacations? .....
14. How long do you expect to remain in Cincinnati? .....
15. Do you expect ever to leave Cincinnati? .....
    If so, when and for what purpose? .....
16. Where do you expect to live after your graduation? .....
17. What profession or business do you intend to pursue or engage in after your graduation?.....
18. Do you or your parents own property in Cincinnati? .....
19. What is your source of support? Parents, friends, self, school fund. (Cross out all but actual source of support.)
20. Have you any employment in Cincinnati? ..... If so, what?.....
21. Have you any employment elsewhere? ..... If so, what?.....
22. Are you a voter? .....
23. Since your removal to Cincinnati have you ever voted elsewhere?.....
24. When and where have you voted in Cincinnati? .....
25. Where are you now registered? .....

State of Ohio, Hamilton County, } ss:

.....being duly sworn says that he signed the foregoing application, and that the facts therein stated are true, as he verily believes.

.....

Sworn to and subscribed before me this ..... day of ....., 191....

.....

Notary Public, Hamilton County, Ohio.

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[FORM Bb.]

University of Michigan.

Department of Literature, Science, and the Arts.

No. .....

M.....

may apply for advanced credit for work done at..... ....

.....

in the subjects checked.

.....

Registrar.

GREEK .....

LATIN .....

FRENCH.....

SPANISH.....

GERMAN.....

ENGLISH.....

RHETORIC.....

ELOCUTION.....

PEDAGOGY.....

MATHEMATICS.....

CHEMISTRY.....

ANALYTICAL CHEMISTRY.....

ZOOLOGY.....

GEOLOGY.....

DRAWING.....

This blank, when signed by the heads of the departments concerned, must be returned by the student Registrar before November 1.

FORM Bc.

University of Michigan.

Department of Literature, Science, and the Arts.

APPLICATION FOR ADVANCED STANDING.

(To be filled out by applicant.)

Name.....

Address.....

.....

Studied at.....

Length of attendance.....years

Graduated.....19....

Degree received.....

COMMITTEE'S RECORD.

(Not to be filled out by applicant.)

Application filed.....

Adjusted.....

Advanced credit given.....hours

Required rhetoric.....

Applicant notified.....

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Special Instructions.

Please fill out this application for advanced standing, paying special attention to all details. Kindly insert on the second page of the application your preparatory work, stating the high school in which it was done, and have the principal of that high school render the statement official by affixing his signature. If more convenient, you may forward an entrance certificate, filled out and signed by the principal, direct to this office. The third page is for the work you have done of collegiate or normal grade. Be careful to specify not only the number of weeks, but the number of hours per week devoted to each study. This statement may be rendered official by having it signed by the registrar or president of the college where the work was done. This paper properly filled out and accompanied by a letter of honorable dismissal from ..... will enable the committee to inform you immediately upon its receipt as to the number of hours of advanced credit which you may expect to receive should you decide to transfer to this department.

Admission to Advanced Standing from Other Colleges and Universities.

The following credentials are required: **A.** A letter of honorable dismissal from the college or university last attended. **B.** An official detailed statement of preparatory studies. **C.** An official detailed statement of college studies completed for which credit is desired. **D.** A marked catalogue of the college or university, showing each subject, including entrance.

This blank should be filled out with care and accuracy, and forwarded with the applicant's credentials, as early as possible, to the Registrar of the University of Michigan, Ann Arbor, Mich.

..... 19.....

To the Committee on Advanced Standing:

I, the undersigned, respectfully apply for admission in October, 19...., to the University of Michigan on credentials from .....College, and herewith submit the following answers in support of the application:

1. When did you enter the above institution?..... When did you leave?.....
2. Did you offer for entrance any school certificate?..... If so, apply for a University of Michigan Certificate of Recommendation.
3. Were you admitted without conditions? .....
4. If not ,what deficiencies?.....
5. How did you make up these deficiencies?.....
6. Were you credited toward graduation with any subjects at entrance?.....
7. If so, what subjects and how much credit for each?.....
8. How many full years have you attended regular instruction in the above institution?.....
9. How many terms are there in each year?.....
10. How many hours are required for the degrees, exclusive of drill and gymnasium? .....
11. What portion of your course have you already completed? E. g. 58/120, 135/180, etc.....
12. Can you continue in your institution, if you desire to do so?.....
13. How many hours did you pass during your last term of attendance?.....
14. Do you hold an Honorable Dismissal?..... Send it.
15. Have you sent a catalogue of the institution, marking the exact subjects offered at entrance and those completed by you?..... If not, send one.

Name in full.....

Address.....

Place and date of birth.....day.....month.....year.....

Name and address of parent or guardian.....

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Preparatory Studies.

The information given below refers to the work in the preparatory school and not to the work done in college, which should be listed on the opposite page.

Name..... Graduated from .....

Preparatory high school.....191.....

Fifteen units are required for admission, a unit meaning the equivalent of five recitations a week in one branch of study for one year, amounting in the aggregate to not less than one hundred and twenty 60-minute hours in the clear. Two to three hours of laboratory, drawing, or shop work will be counted as equivalent to one of recitation. These fifteen units must include three units of English composition and literature, two units of a foreign language, one unit of algebra and one of geometry, and one unit of one of the sciences, physics, chemistry, botany, or zoology, and may include not more than three units from Group II. They must embrace two subjects of three units each from Group I. It is, however, strongly recommended that one or more studies be pursued throughout the four years of the high-school course. The subjects from which choice may be made, and the number of units which will be accepted in each subject, are as follows:

Group I.

Subject.	Hours per week.	No. of weeks.	Grade.	Subject.	Hours per week.	No. of weeks.	Grade.
English composition and literature, 3 or 4 units...				Geometry, 1 or 1½ units...			
Greek, 2 or 3 units.....				Trigonometry, ½ unit.....			
Latin, 2, 3, or 4 units.....				Physics, 1 unit.....			
French, 2, 3, or 4 units....				Chemistry, 1 unit.....			
German, 2, 3, or 4 units...				Botany, ½ or 1 unit.....			
Spanish, 2, 3, or 4 units...				Zoology, ½ unit.....			
History, 1, 2, or 3 units...				Geology, ½ unit.....			
Algebra, 1, 1½, or 2 units...				Physiography, ½ or 1 unit.			

Three units of science may be offered as a three-unit subject.

In order that a half unit in science may be accepted it must be supplemented by a second half unit in science. For this purpose the only groupings permitted are the following: (a) Botany and zoology; (b) Zoology (or botany) and physiology; (c) Physiography and geology; (d) Physiography and physiology.

Two units of mathematics and one unit of physics may be offered as a three-unit subject, in which case a second unit of science must be presented.

Group II.

Subject.	Hours per week.	No. of weeks.	Grade.	Subject.	Hours per week.	No. of weeks.	Grade.
Agriculture, 1 or 2 units...				Manual training, 1 or 2 units.....			
Domestic science, 1 or 2 units.....				Commercial branches, 1 or 2 units.....			
Drawing, ½ or 1 unit.....							

The above is not designed to take the place of the required official statement. The preparatory school, however, may make the above statements official by signing the following statement:

I hereby certify to the accuracy of the above statement.

.....

Principal of the.....High School.

.....191

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Collegiate Studies.

The information given below refers to the work completed in..... .....College, as outlined in the catalogue for 19.... For preparatory studies see preceding page.

Subject.	Page of cat.	No. of course.	Hours per week.	No. of weeks.	Grade.	Subject.	Page of cat.	No. of course.	Hours per week.	No. of weeks.	Grade.	Remarks.
.....	....	....	....	....	....	.....	....	....	....	....	....	.....
.....	....	....	....	....	....	.....	....	....	....	....	....	.....
.....	....	....	....	....	....	.....	....	....	....	....	....	.....
.....	....	....	....	....	....	.....	....	....	....	....	....	.....
.....	....	....	....	....	....	.....	....	....	....	....	....	.....
.....	....	....	....	....	....	.....	....	....	....	....	....	.....
.....	....	....	....	....	....	.....	....	....	....	....	....	.....

(Name).....

The above is not designed to take the place of the required official statement, which each institution may make in such convenient form as it may prefer. The college, however, may make the above statements official by countersigning this page as follows:

I hereby certify to the correctness of the above statements.

.....

(Position).....

.....College.

(Do not forget the letter of honorable dismissal.)

FORM Bd.

Earlham College.

Change of Registration.

To the Registrar:

....., 191....

.....has permission to

Department.	Course No.	No. of hours.	Indorsement of instructor.
Cancel registration in following:			
Register in following:			

This permission should be deposited AT ONCE with the Registrar.

....., *Pres.*

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FORM Be.

The Pennsylvania State College.

Founded 1855.

MATRICULATION CARD.

M.....

has been admitted as a student to The Pennsylvania State College and is entitled to all the rights and privileges thereto appertaining.

.....

Registrar.

Date.....

This card is to be kept permanently as a certificate of membership in the college.

FORM Bf.

The Pennsylvania State College.

REPORT TO REGISTRAR.

.....*Semester, 191 –191* .

Date of examination....., *191* .

Subject (catalogue name and number).....

Credit hours per week (see catalogue).....

NUMBER.	NAME.	GRADE PER CENT.	NUMBER.	NAME.	GRADE PER CENT.
1			7		
2			8		
3			9		
4			10		
5			11		
6			12		

Date of report....., *191*.... *Signature*.....

PLEASE OBSERVE CAREFULLY THE FOLLOWING DIRECTIONS.

Two reports must be made of every examination, the results of which are to go on record. The report to the registrar (184 Main Building) should contain the names of all the students enrolled in the class, arranged alphabetically with initials affixed. The class should then be divided according to the school or freshman division in which each student is enrolled, and a report of each group, with names arranged alphabetically and initials affixed, sent to its proper dean or freshman adviser.

Give each subject its catalogue name and number (e. g., math. 5). Use a separate sheet for each subject. Note the time and reason for any withdrawals from the class. If a student's dean or adviser has authorized the deferring of a grade in a given subject, note the fact and state the reason.

If a student fails in the examination, but has a combined term and examination grade of 60 or more, indicate this fact by giving him a grade of "D."

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FORM Bg.

The Pennsylvania State College.

IMPORTANT.

To M.....

You are hereby notified that at the end of.....weeks you are reported as being below the required standing in

.....

.....

....., 191.... .....

Dean. Adviser.

FORM Bh.

Massachusetts Institute of Technology.

ROLL REPORT.*

Subject: ..... *Year:* ..... *Section:* .....

BOSTON, ... 191....

The following students whose names *are not* on the Registrar's list ATTEND	The following students whose names *are* on the Registrar's list do NOT attend
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....

Signature.....

* This should be used for reporting *inaccuracies, not irregularity* in attendance. It should be returned whether rolls are correct or not.

FORM Bi.

The University of Wooster,[1] Wooster, Ohio.

REPORT OF ABSENCE OR DELINQUENCY.

THE REGISTRAR.

The University of Wooster.

(Use a separate card for each name.)

Subject..... *Course*.....

(1) M..... *was this day absent, making a total of* ..... *absences.*

(2) *M*..... *was this day tardy or egressed, making a total of* ..... *times not excused.*

(3) *M*..... *is neglecting h*..... *work and is* {*falling below previous standing* / *in danger of failing* / *certain to fail*} *in this course.*

(4) I have conferred with the student. A conference with the dean is suggested.

Date..... .....*Instructor.*

---

[1] Now called "The College of Wooster."

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FORM Bk.

The University of Wooster.

Registrar's Office.

Notice is hereby given that ..... *has been given*
permission to drop
been excused from
withdrawn from the university } .....
been dismissed from the university

Please note accordingly on class rolls and return the class card to this office at the close of the semester.

.....

Registrar.

Date.....

FORM Bl.

State University of Kentucky, Lexington.

Supt. .....

.....

The following is a statement of the grades for first term's work of the graduates of your school who entered this institution the fall of 191.....

This information is for the use of the superintendent only.

	Botany.	Chemistry.	Domestic science.	Drawing.	Education.	Engineering.	English.	History.	French.	German.	Greek.	Latin.	Mathematics.	Physics.	Gymnasium.
.....															
.....															
.....															
.....															
.....															

Grade: A, means excellent; B, good; C, fair; D, unsatisfactory; E, failure; Inc., incomplete. C is the lowest grade given for satisfactory work.

....., *Registrar.*

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FORM Ba.

State University of Kentucky.

CLASS LIST.

Please return promptly to the registrar and without folding.

Instructor.....*No. weeks*.....

Subject taught..... Catalogue No.....

..... Hour of recitation.....

Days on which class recites.

Place names alphabetically.

Family name.	Given name.	College.	Family name.	Given name.	College.
1			9		
2			10		
3			11		
4			12		
5			13		
6			14		
7			15		
8			16		

FORM Bb.

State University of Kentucky.

Department of.....Instructor.....

Record of class..... Catalogue No.....

....term of session 19..–19.. No. recitations per wk.. No. wks. in term.....

Credits units..... Text used..... Hour of recitation.....

Supplemental report should be made when "conditions" have been removed on cards furnished by the registrar. The cause of each student's failure or poor work should be indicated at the close of term under "Remarks."

(Place names alphabetically.)

	Family name.	Given name.						Term av.	Exam.	Report.	Remarks.
1											
2											
3											
4											
5											

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FORM Bo.

Allegheny College.

Report of Class Standing of.....

for the term ending.....

Studies.	Grade.
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....

.....

Registrar.

Daily standing is marked on the scale of 50.

Examinations are marked on the scale of 50.

The average of the daily standing and the examination is the term mark, or final grade.

The passing mark is 30.

All reports of students' work are made on the following scale:

A, indicating a grade of from 45 to 50; B, 40 to 44; C, 35 to 39; D, 30 to 34; E, 27 to 29—a "condition"; F, below 27, a failure.

FORM Bp.

Allegheny College.

Registrar's Office.

M.....

I regret to inform you that you have failed to secure a passing grade in

Subject.	Grade.
.....	.....
.....	.....
.....	.....
.....	.....

Please consult with the instructor concerning the matter.

.....

Registrar.

All reports of students' work are made on the following scale:

A, indicating grade of from 45 to 50; B, 40 to 44; C, 35 to 39; D, 30 to 34; E, 27 to 29—a "condition"; F, below 27, a failure.

A student marked as "failed" in a subject is entitled to a second examination, if he so desire, at a time to be arranged by the instructor. In case of a second failure, or of neglect to apply for a second examination within two weeks of the opening of the next term, the study must be taken over in class.

A student marked as "conditioned" in a subject may have a second examination as explained above, or he may, at the discretion of the instructor, continue the subject, and if he secures an average mark for the two terms of 30 or more, the condition of the first term will be removed.

A student who has been conditioned in a subject must remove such condition before the subject is given again, or repeat the work in class with no credit for his previous work in the subject.

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FORM Bq.

Massachusetts Agricultural College.

Use this blank for *second* semester only.

Date, June.....191....

To the Registrar:

Mr. ..... *Class*.....

Receives a mark of.....

Course in.....{*Catalog No.* / *of Course*}.....

NO. OF CREDITS OF COURSE.....

Sig. Instructor.....

wh Mark withheld.
Conditioned.

FORM Br.

University of Kansas.

Office of Registrar.

M.....

Please report at Registrar's office to-day or to-morrow during the regular office hours, 8–12 or 2–5.

Purpose.....

Bring this notice with you.

.....

Registrar.

.....19....

[FORM Bs.]

DePauw University.

Application Blank for Graduation.

GREENCASTLE, IND., ..., 191..

I, ..., desire to become a candidate for the degree of.....at the commencement of June, 191..

I have.....hours to my credit and am now taking.....hours.

My major is.....

My required language is.....

My required science is.....

(*Signed*).....

Age.....

Intended occupation.....

Home address.....

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[FORM B1.]

DePauw University.

APPLICATION FOR PERMISSION TO CARRY EXTRA HOURS.

....., 191..

Name.....
First name. Middle name. Last name.

Greencastle address.....
Number. Street.

How many semesters have you already spent at DePauw?.....

For what courses have you just registered?

Department.	Course.	Hours.

What extra work do you desire?.....
Department. Course. Hours.

What work will you have in addition to the above courses? (Specify work in music, or art, participation in college activities, work done for self-support, etc.).....

.....

What are your reasons for desiring extra work?.....

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BULLETIN OF THE BUREAU OF EDUCATION.

[For numbers prior to 1916 see leaflet "List of Available Publications," Bureau of Education, which may be had on application.]

1916.

No. 1. Education exhibits at the Panama-Pacific International Exposition. W. Carson Ryan, jr.
No. 2. Agricultural and rural education at the Panama-Pacific International Exposition. H. W. Foght.
No. 3. Placement of children in the elementary grades. K. J. Hoke.
No. 4. Monthly record of current education publications, January, 1916.
No. 5. Kindergarten training schools.
No. 6. Statistics of State universities and State colleges.
No. 7. Monthly record of current educational publications, February, 1916.
No. 8. Reorganization of the public-school system. F. F. Bunker.
No. 9. Monthly record of current educational publications, March, 1916.
No. 10. Needed changes in secondary education. Charles W. Eliot and Ernesto Nelson.
No. 11. Monthly record of current educational publications, April, 1916.
No. 12. Problems involved in standardizing State normal schools. C. H. Judd and S. C. Parker.
No. 13. Monthly record of current educational publications, May, 1916. 5 cents.
No. 14. State pension systems for public-school teachers. W. Carson Ryan, jr., and Roberta King.
No. 15. Monthly record of current educational publications—Index, February, 1915—January, 1916. 5 cents.
No. 16. Reorganizing a county system of rural schools. J. Harold Williams.
No. 17. The Wisconsin county training schools for teachers in rural schools. W. E. Larson.
No. 18. Public facilities for educating the alien. F. E. Farrington.
No. 19. State higher educational institutions of Iowa.
No. 20. Accredited secondary schools in the United States. Samuel P. Capen.
No. 21. Vocational secondary education.
No. 22. Monthly record of current educational publications, September, 1916.
No. 23. Open-air schools. S. P. Kingsley and F. B. Dresslar.
No. 24. Monthly record of current educational publications, October, 1916.
No. 25. Commercial education. Glen Levin Swiggett.
No. 26. Educational institutions of the State of Washington.
No. 27. State higher educational institutions of North Dakota.
No. 28. The social studies in secondary education.
No. 29. Educational survey of Wyoming.
No. 30. University training for public service.
No. 31. Monthly record of current educational publications, November, 1916.
No. 32. Manual arts and home-making subjects in 156 cities. J. C. Park and C. H. Harlan.
No. 33. Registration and student records in smaller colleges. B. F. Andrews.
No. 34. Service instruction of American corporations.
No. 35. Adult illiteracy. Winthrop Talbot.
No. 36. Monthly record of current educational publications, December, 1916.
No. 37. Cooperative system of education. C. W. Park.
No. 38. Negro education. Volume 1. Thomas Jesse Jones.
No. 39. Negro education. Volume 2. Thomas Jesse Jones.
No. 40. Gardening in elementary city schools. C. D. Jarvis.
No. 41. Agricultural extension in Ireland. A. C. Monahan.
No. 42. Minimum school term. J. C. Muerman.
No. 43. Educational directory, 1916–17.
No. 44. The district agricultural schools of Georgia. C. H. Lane and D. J. Crosby.
No. 45. Kindergarten legislation. Louise Schofield.
No. 46. Recent movements in higher education. S. P. Capen.
No. 47. Work of the Bureau of Education for natives of Alaska.
No. 48. Rural school supervision. Katherine M. Cook and A. C. Monahan.
No. 49. Medical inspection in Great Britain. E. L. Roberts. (Illus. only.)
No. 50. State-aided universities and colleges.

(Continued on p. 3 of cover.)

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DEPARTMENT OF THE INTERIOR
BUREAU OF EDUCATION

BULLETIN, 1916, No. 34

SERVICE INSTRUCTION
OF
AMERICAN CORPORATIONS

BY

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MUNICIPAL CIVIL SERVICE COMMISSION
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SERVICE INSTRUCTION OF AMERICAN CORPORATIONS

SERVICE INSTRUCTION OF DEPARTMENT STORES

I. INTRODUCTION.

Importance of salesforce.—Although department stores exist for the purpose of selling goods and obtaining an increasing patronage from a satisfied public, most department stores have left the salesforce, which is the point of contact with the public, with a low wage scale, uneducated, unstandardized, and recruited by haphazard methods of selection. The first attempts to raise the standards of the department-store salesforces were made by welfare workers, who sought to better the condition of the girls by means of superficial educational activities and other philanthropic methods that are likely to be unjust to the self-respecting spirit of the girls.

Saleswomen.—The salesforce of most department stores is composed principally of women, who are better suited to this work than men, because they learn more quickly, work for a lower wage, and are more willing to obey instructions that they do not understand. On the other hand, they have a lower physical efficiency, and being contented with monotonous tasks, lack the ambition for advancement which generally increases the business efficiency of men. Marriage does not seriously affect this problem, since saleswomen generally have a working life of about 10 years, from the age of 16 to the age of 26.[1] Furthermore, as the result of death or misfortune, many saleswomen return to work after marriage and follow salesmanship as a life occupation.

Team spirit.—The lack of team spirit which is generally found among women workers is accentuated in the case of saleswomen, since a lack of intelligent cooperation separates each department and each member of each department from all others. Saleswomen have practically no opportunity of coming into friendly intimacy with their fellow workers, since they are isolated by the constant presence of customers. Furthermore, they generally have no sense of relation or obligation to their employer other than that of "making a large book," *i. e.*, selling a large quantity of goods. The team spirit of

[1] Beulah E. Kennard. (See p. 30.)

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saleswomen may be developed by means of physical exercises in a gymnasium, and the social spirit may be similarly cultivated by means of music and organized games.

II. PHYSICAL EDUCATION.

Physical examinations.—Although the health of employees is one of the most important factors in efficiency, comparatively little attention has been given to this subject until recently. For the promotion of commercial hygiene and efficiency, applicants for employment should be given a thorough physical examination, including an inquiry into their previous clinical history; an examination of heart, lungs, back, and feet; an inquiry into their habits with reference to sleep, exercise, diet, and bathing; and a few important measurements. This physical examination should be repeated at periodic intervals, with a view to conserving and improving the health of the employees.

The following forms give an idea of the manner in which two firms have met the situation:

JOHN WANAMAKER.

J. W. C. I. PHYSICAL DEVELOPMENT.

Name..... *Section*..... *Age*.....

Examination.	*Date.*	*Date.*	*Date.*
1. Height			
2. Weight			
3. Chest			
4. Teeth			
5. Eyes			
6. Hearing			
7. Nose and throat			
8. Digestion			
9. Posture			
10. Scalp			
11. Feet			
12. Spine			
13. Skin			
14. General condition			

LORD & TAYLOR.

HEALTH DIVISION—EDUCATION DEPARTMENT.

*Nationality*_____ *Name*_____

*Date*_____ *Address*_____

*Age*_____

CLINICAL HISTORY.

Past History (general): Measles_____; scarlet_____; rheumatism _____; other conditions_____; operations_____; pneumonia _____; diphtheria_____; chorea_____; skin eruptions_____; typhoid_____; enlarged glands_____.

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Present history (general): Backaches_____; cough_____; colds _____; headache_____; indigestion_____; constipation _____; over-fatigue_____; other conditions_____.

Special conditions: Eyes_____; ears_____; nose and throat_____; orthopedic_____; menstruation—Age at start_____; interval _____, duration_____, flow_____, pain_____, reflex, headaches_____, nausea_____, lame breasts_____, other symptoms_____; made worse by_____; made better by_____; leucorrhea_____.

Habits of living: Sleep_____; exercise_____; diet_____; cold bath_____.

LORD & TAYLOR.

HEALTH DIVISION—EDUCATION DEPARTMENT.

*Name*_____; *Date*_____.

EXAMINATION—MEDICAL AND PHYSICAL.

General: Nutrition_____; complexion_____; muscle tone_____; mucous membranes_____; tongue_____; teeth_____; tonsils _____; throat_____; eyes_____; pupils_____; thyroid gland_____; lymph nodes_____; pulse, before exercise_____; after exercise_____; hands_____; tremor_____; knee-jerk _____.

Orthopedic: Back—deviation_____, rotation_____, flexibility_____, correction_____, physiological curves_____; shoulders—higher _____, forward_____; hips—higher_____.

Chest: Heart—inspection_____, palpation_____, percussion_____, auscultation_____; lungs—inspection_____, palpation_____, percussion_____, auscultation_____.

Abdomen: Tenderness_____; visceroptosis_____; intercostal angle _____.

Feet: (Right_____, left_____): Pronated_____; tenderness _____; flexibility_____; callouses_____; arches—longitudinal_____, transverse_____.

Measurements: Height_____; weight_____; vital capacity_____; girths—chest (9th rib) contracted_____; expanded_____; strength of chest_____; back_____; legs_____.

Health of saleswomen.—The importance of periodic physical examinations as an aid in promoting the efficiency of the sales force of a department store has been clearly demonstrated by the findings of a recent examination of 75 saleswomen in New York,[1] of whom

[1] Kristine Mann.

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78 per cent suffered from scoliosis, 63 per cent from exaggerated curves of the back, 58 per cent from indigestion, 54 per cent from moderately bad backs; 37 per cent from thoroughly bad backs, 28 per cent from leucorrhea, 21 per cent from pronated feet, 18 per cent from heart weakness, 18 per cent from severe pain at menstruation, and 8 per cent from painless flat foot. Although the average age of these 75 young women was only 26 years, but 8 per cent had good backs and but 12 per cent were in good physical condition.

Weakness of back.—The fact that a large majority of saleswomen appear to be suffering from weakness of the back is of great importance to anyone who seeks to increase the efficiency of the sales force. This condition has a marked effect upon the alertness and activity of the mind, as well as of the body. It is a common observation that toward the close of the day the saleswomen are not physically able to give good service, and anything that will improve the physical condition of these women will add to their selling ability. Eye trouble, swollen tonsils, decayed teeth, and actual illness should receive proper medical attention. Personal advice should be given to those who require it, on the subjects of diet, bathing, and dress. For weakness of the back and postural defects, suitable gymnastic exercises should be prescribed.

The following are typical exercises that will be helpful:

CORRECTIVE EXERCISES—TO BE PRACTICED AS PRESCRIBED.

First—To Correct Flat Chest:
Stand at attention. Inhale through nose deeply as possible, throwing the chest out and holding abdomen in. Hold while counting ten. Exhale slowly. To be done six times. Practice three times a day.

Second—To Correct Weak Back:
Stand at attention. Raise arms above head. Bend forward, lowering arms until tips of fingers touch the floor, without bending knees. To be done four times. Practice three times a day.

Third—To Correct Weak Arms:
With half-pound weights, practice arm and forearm movements of setting-up drill. Practice three times a day.

Fourth—To Correct Weak Abdomen:
Lie at full length on the floor. Without bending knees, bring feet up to a right angle above body. Do not assist with hands. Practice ten times, twice a day.

Selection of employees.—Every applicant for employment should have a thorough physical examination. The searching questions of the medical examiner with reference to the applicant's personal history will disclose her physical fitness for indoor work and her freedom from diseases likely to be communicated. Applicants suffering from minor local ailments should be advised to seek treatment and

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to renew their application when cured. Those suffering from epilepsy, leaking hearts, or incipient tuberculosis should be rejected. The general type of the applicant should also be considered. A girl with a nervous inheritance, a history of chorea, a case of chlorosis, a slight lateral curvature, retarded development, or a history of frequent acute respiratory conditions should be discouraged from seeking employment in a department store.

Dental care.—The teeth of every applicant for employment and of every employee should be examined. Instruction in the use of the toothbrush and advice concerning the importance of the early treatment of decayed teeth should be given to all by lectures or by means of printed bulletins. Heads of departments should be required to report employees whose mouths require attention in order that negligence, fear of pain, or lack of money may not result in serious neglect of teeth, gums, or mouth.

Care of feet.—The care of the feet is a matter of special importance in the case of saleswomen, who are obliged to stand all day. Corns, bunions, and callosities should receive proper treatment from a chiropodist, and cases of weak or broken arches or flat foot should receive the attention of a competent orthopedic surgeon. The proper care of the feet and the wearing of proper footwear should be taught by means of lectures and by means of bulletins, since neglect results in painful conditions, interference with walking and standing, and nervous and constitutional symptoms that are detrimental to efficiency.

Rest rooms.—The fact that saleswomen are obliged to be on their feet most of the time results in many cases of dysmenorrhea. These cases may be relieved by nurses in rest rooms provided for this purpose. Rest in bed, a hot-water bag, and complete relaxation with clothing well loosened will enable the saleswoman to return to her duties entirely refreshed in a short time. Although cases presenting symptoms of pain, nausea, and headache may be treated by nurses in rest rooms in this manner, those presenting symptoms of nervousness, weakness, and prostration require the skilled care of a physician, as do saleswomen suffering from uterine, ovarian, and tubal disorders.

Instruction in personal hygiene.—Instruction in personal hygiene may be given to the saleswomen by means of lectures or by means of bulletins. The saleswomen should be made familiar with the processes of digestion and elimination; the physiology of the digestive, respiratory, circulatory, and nervous systems; the importance of regularity of eating and a proper diet; the care of the eyes, teeth, nose, throat, and feet; sleep, exercise, and ventilation; and the prevention and cure of colds. Personal appearance, suitable dress for business women, perspiration, bathing, constipation, and the care of the hands and the hair should receive special emphasis. This instruc-

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tion in hygiene may be supplemented by lectures delivered under the auspices of the local society for the prevention of tuberculosis and the local social hygiene society. The following illustrates what is done:

EDUCATIONAL BULLETIN NO. 24—AMERICAN UNIVERSITY OF TRADE AND APPLIED COMMERCE.[1]

For Summer Comfort:

Good Digestion. Plenty of Sleep. Free Use of Cool Water inside and out.

Wear sensible and loose clothing, making as many complete changes as possible.

A large part of discomfort in hot weather is due to disordered stomach and digestion. Coated tongue, loss of appetite, constipation, sour eructations, drowsiness and dullness after meals are all indications of this. This condition affects our energy and spirits and makes the weather seem hotter than it really is.

Eat seasonably, taking ripe fruits, green vegetables, cereals, eggs, salads, light desserts, and meat in moderation. Do not flood the stomach with large quantities of cold drinks with the meals.

Butter, gravies, fats, oils, coffee, pastry, fried foods, hot breads, and much meat are heat-producing foods. Avoid crab meat (except at the seashore), cucumbers, unripe fruits, and bad combinations, such as potato salad with ice cream, or sour things and acids with milk. Loading the stomach just before sleeping is a cause of many upsets. If hungry, eat something light, such as crackers and milk, or ripe fruit, rather than ice cream, soda water, etc.

Drink all the cool water you wish between meals, preferably in small quantities at a time.

On very hot days a sponge or shower or a quick tub bath taken twice a day is not too much. Keep the pores ever active and free, and you will have a feeling of well-being and enjoy the summer more than you ever have before.

Evenings, Saturdays, and Sundays be out of doors every minute that you can. Get your feet on the ground and be outdoor people as these opportunities now permit.

Be a little more deliberate on the hot days, and let moderation and common sense prevent those nerve wreckers, "hurry" and "worry," from making life miserable. Be content to save a little of to-day's energy both in work and play for to-morrow.

CHARLES B. WORDEN, M. D.,
Medical Director.

June 15, 1914.

Recreative facilities.—The physical welfare and moral safety of the saleswomen may be protected by making suitable and adequate provisions for recreation. On a roof garden sheltered by an awning and having swings, rustic benches, potted plants, flowers, and electric light the girls may rest or play games during the lunch hour and dance in the evenings in summer.[2] In a spacious, sunny recreation hall equipped with chairs, pictures, a phonograph, and a piano the

[1] John Wanamaker.

[2] M. V. Greene.

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girls may enjoy dancing or a musical program during the lunch hour. Dancing clubs may serve as a means of teaching dancing to the younger women under conditions in which correct decorum and dignity are maintained, and at stated intervals informal dances may be given, to which the members of the dancing clubs may be permitted to bring outside friends. The organization of bands and bugle corps will also be found to be advantageous.

III. VOCATIONAL TRAINING.

Buyers' conferences.—The simplest form of instruction in salesmanship is that afforded by buyers' conferences. In the organization of a department store the buyer of a department is its principal officer. The efficiency of the sales force may be greatly increased by holding weekly conferences of the sales force, at which the buyers give lectures and suggest solutions to the problems in salesmanship submitted by the saleswomen. Such subjects as "care of stock," "labeled goods," "suggestive selling," "old goods," and "returned goods" may be discussed at these conferences. These lectures should be carefully reviewed at subsequent conferences. Written tests on them may be given, and their educational value may be further increased by furnishing to each sales person a bulletin on the subject of the lecture for permanent preservation and reference.

The following selections are types of some of the lectures mentioned above, together with representative tests held after the lectures:

Lord & Taylor. ***Education Department.***

BULLETIN.

CARE OF STOCK.

The lectures given by Mrs. ——— were given careful attention and aroused a new interest in the careful handling of stock. Her main points were:

1. *Importance* of handling the stock with care, because a very small damage done by each of 40 or 50 girls would soon make the hat or other article look shopworn.

2. *Putting the stock back* where others can find it and not allowing it to remain out of the case after it has been shown.

3. *Soiled* or mussed stock must be reduced in price and causes loss to the department.

4. *Cooperation* in the department. Putting away stock for a busy saleswoman is cooperation in the department, as well as general care of our own and other people's stock.

Cooperation with the buyer: Giving proper attention to all the goods and not selling the newest things in preference to goods that were in the department previously.

Cooperation with the store: Being courteous about returned goods by care in selection and asking the customer, "Are you satisfied?"

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The answers given by the three classes to a series of questions on care of stock showed that some had given the matter careful thought and some had not. Very few remembered the lecturer's point about the large numbers handling stock. All realized that soiled or mussed stock must be reduced in price. A number did not give any answers as to how they could cooperate. Some do not seem to understand what cooperation means. The best answers on these points were:

System is the main thing.
Being courteous to people whether they buy or not.
Handling goods as if they were personal property.
Putting away stock for another girl if she is busy.
Being on the alert to help others.
People can do more by working together.
Showing new girls.

August 18, 1914.

TEST ON THE CARE OF STOCK.

1. Why does carelessness in handling stock cause so much loss in a large department?
2. What must be done with shopworn goods?
3. Why should you sell old goods first? Two reasons.
4. Advantages of cooperation to department?
5. In what ways can you cooperate in your department?
6. What goods in your department are most easily injured and need most careful handling?
7. Suggest some improvement in your department which you think would help to keep your stock in better condition or make it easier to get.
8. What are the points which the head of your department makes most important in handling your stock?

Lord & Taylor. ***Education Department.***

BULLETIN.

"OLD GOODS."

Mr. ——— began with a proverb—

"Collecting old goods is collecting trouble."

His principal points were the following:

Stock.

1. Many kinds of stock are destroyed by time, even if they are not handled. Among these are rubber goods of all kinds, and spool silk, which rots on account of the dye.

2. All stock is injured by dust and handling, as, for example, side combs, which are scratched by being rubbed against each other.

Buyer.

1. Old goods cause a department to have too much of one kind of stock, because a buyer is allowed only a certain amount of money, and if he has old stock left over in one line he has not enough money to buy even necessary things in another line.

2. A buyer wants to move stock quickly, because his business is to buy, and he wants to turn his money over often in order to make larger profits.

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Customer.

1. A customer always likes to see new goods.

2. It is harder to convince a customer that the old goods are "just as good" or that they will suit her as well as the new.

3. A customer is more likely to return old goods when she examines them and finds them shopworn or out of style.

Sales person.

1. It takes twice as long to sell old goods as new, because old goods must be "talked up."

2. The sales person is more interested in new goods. That makes selling much easier and more successful.

Tests on this lecture.

1. Only three or four spoke of the loss of profit by keeping old stock. Some seemed to think it was good to have new stock just because it looks new and fresh.

2. Illustrations were given of French ivory which turns darker with age, perfumes which change color, white hats which grow yellow, feathers which gather moths, tinsel which becomes tarnished, kid gloves which become harder, and velvet which becomes marked by being kept in stock.

August 31, 1914.

TEST ON OLD GOODS.

1. How does stock lose in value by remaining too long in the department?
2. Why does a buyer wish to move stock quickly?
3. How do old goods cause a department to have too much of one thing?
4. Why is a customer more likely to return old goods than new?
5. Condition of notion department at the beginning of the war.
6. Why does it take more time to sell old goods than new?
7. What difference does your own interest make in the amount of goods you sell?

Lord & Taylor. ***Education Department.***

BULLETIN.

"LABELED GOODS."

All large department stores carry two kinds of labeled or branded goods, those bearing the name or label of a manufacturer and those bearing the name or label of the store.

Store control.

The most important advantage gained by selling goods with the store label is that the buyer (or store) can control the cost of manufacture, advertising, and selling price, and can not be forced to meet unreasonable demands on the part of the manufacturer.

Mr. ——— gave two convincing illustrations of being in the power of an outside manufacturer. In one case an article which the store had carried for 32 years and had widely advertised was taken away because the store refused to buy the amount of goods demanded.

In another case prices were cut in outside towns, reducing the value of the store's stock.

Buyer.

There is more profit in goods bearing the store label—

1. Because the manufacturer charges the retailer for his name.

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2. Because the manufacturer includes the cost of his own advertising in the price to the retailer.

Labeled goods are an advantage to a small store, but large and well-established stores need no outside guaranty for the goods they sell.

Sales person.

Goods sold under the store label are more likely to make permanent customers, as they can be bought in no other store.

Customer.

Complaints made of goods sold under the store label can be adjusted in the store without delay. Other labeled goods must be referred to the manufacturer.

September 24, 1914.

Efficiency bulletins.—The educational value of these buyers' conferences may be increased by issuing efficiency bulletins to the sales force at regular intervals on a subject related to salesmanship or store system. These efficiency bulletins are made the basis of the conferences, and reports of the conferences are sent to the educational director of the store. Examples of these efficiency bulletins are given below.

A CREED FOR THE SALESMEN AND WOMEN OF THE WANAMAKER STORE, NEW YORK.

I believe in the Golden Rule, "Do unto others as you would have them do unto you."

I believe it should govern our conduct between business associates as well as among friends.

I believe that its daily application and observance would make all other rules and regulations unnecessary for me.

Because I would begin the day by being punctual—would waste no time—be cheerful and alert—scrupulously clean in person and mind—willing to give a full measure of time, effort, and attention as my part of the day's product.

Because I would read our advertisements and remember what I read; then tell my customers, and by tactful suggestion, sympathetic interest, and correct service secure their confidence in our merchandise and store.

Because I would consider selling my primary purpose and first duty and hold all other tasks as secondary.

Because I would not allow my stock work to subtract from my attention to customers, but would be ready and willing to serve the public promptly, regardless of other duties.

Because I would know my stock thoroughly and keep it in perfect order and as complete as possible—would always report stock shortage, and conscientiously strive to secure what was asked for, maintaining a follow-up record to insure my customers against disappointment.

Because I would remember the importance of attention to the details of completing and recording a sale, and insure against disappointment and complaint by securing the correct name, complete address, and shipping instructions, and confirming these by repeating them carefully and audibly; by legible writing and figures, always in the correct place; by shunning abbreviations; by making no rash promises, and by referring all requests for special deliveries to the floor manager; by being fully informed concerning our wagon-delivery schedule; by being very careful in directing customers, always securing the correct information when in doubt; by announcing the amount of cash received and counting the amount of change returned in a manner to guard against errors or subsequent disputes.

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Because I would look upon all visitors as guests and customers, serving them with cheerful attention; always remembering that they may be heavy purchasers in other sections of the business, although my particular merchandise may not interest them at the time.

Because I would guard against misrepresentation or misleading statements, would be truthful in my recommendations, and hold the customer's interest jointly sacred with the interests of the business.

Because I would always welcome my friends and encourage them to patronize the store, but courteously explain to those who tarried to visit that my time was so occupied that they must excuse me.

Because I would cheerfully serve customers returning goods for exchange or credit, and strive to offset their disappointment by refraining from any discussion of the merits of the merchandise returned, preferring to interest them in something else rather than to attempt to convince them of the error of their judgment in a matter of which they evidently have a fixed opinion, and I would be qualified to do this by knowing my merchandise thoroughly, fabrics, texture, suitability, and probable service.

Because I would welcome the call to assist in other and busier departments than my own, and profit by the opportunity to broaden my knowledge of merchandise and service instead of considering my prestige tarnished by the temporary transfer.

Because I would let it be known that disloyalty or dishonesty would not be passively countenanced by me; that the onus of such would not be shared by me through failure to report it.

Because I would not let trifles or petty jealousies sour my temper or distort my vision of the realities of life, always remembering that strong, well-poised minds refuse them recognition, while weak natures endow them with superlative importance.

Because I would always speak well of the store, holding loyalty on a par with honesty; recognizing that my progress is of my own making. I would hitch my wagon to the star of persistent, patient industry, always busy, cheerfully busy, but never too busy to be considerate of my fellow employees, deserving their good-will by tactful conduct and square dealing—by assisting and encouraging the beginners, helping them to see the importance of the details of system and understand the need and purpose of store regulations and restrictions.

Because I would discourage pernicious gossip, thoughtless criticism of the store management, organization or merchandise, and idle and unkind speculation about my store associates; by defending the absent and spurning the scandal monger; by advocating good-fellowship, and a unity of purpose to be free from worry and the taint of discontent.

All of which can be summed up in the first profession of belief of this creed:

"Do unto others as you would have them do unto you."

EDUCATIONAL BULLETIN NO. 21—AMERICAN UNIVERSITY OF TRADE AND APPLIED COMMERCE.

The Post of Duty—

For Service and Guardianship:

The "School of the salesman" puts necessary emphasis upon the *Post of duty* of the salesman; upon the salesman's *being at his post* as much of the time as possible; upon his being *constantly observant* there.

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What are some of the reasons?

1. *My "post" is my shop.*—To the extent I am away, or so absorbed that I do not take business advantage of a customer's approach, to that extent *my shop is closed* and my public service and my individual business lose.

2. *Business courtesy and dignity.*—Due regard for appearances and right respect toward the guest and the customer require this attitude of "*attention*" in body and mind.

3. *Selling efficiency.*—A customer stops casually to examine merchandise. Several of us sales people are grouped at a distance. Separated and at our posts, one of us would have been near this customer. But, as it is, an opportunity may be lost. If the salesman thinks customer is simply looking (and the store cordially extends that courtesy, without solicitation to buy) and so keeps his distance, he risks giving the impression that we are indifferent to one who really wants attention. If he steps toward the customer, he risks causing one who may be "simply looking" to feel that, not meaning to buy, she must pass on. It is a fact that we have many complaints of "indifference" and of "oversolicitation" which arise in this way.

Sales forces well scattered and alert have best opportunity to speak of and show their merchandise to the casual customer without risk of wrong impression; and many sales are made, either at the time or later, as a result of the salesman's being thus at hand and *able to enter naturally into conversation* with the casual looker.

4. *Guardianship of property.*—The selling forces are the guardians of the property committed to their care. The stocks are divided and every part is under some-one's care. So long as human weakness creates temptation to take things which are not our own, just so long this guardianship of the property must remain a serious duty of the salesman. Grouping, allowing the attention to become absorbed too completely in business or in nonbusiness matters, hastening off to observe some celebrity, the fire engines, a parade, or other cause of excitement give opportunity and create temptation. The following are distinct points of duty for the salesman, arising from the sad fact that all are not at all times under control of their own best selves.

(*a*) To be *at the post and be observant*, so that if some one with wrong purpose looks to see whether anyone is watching he *will see that some one is watching.*

(*b*) When anyone is seen to act suspiciously, or when for any reason the salesman's suspicions are aroused, to *send quietly for one in authority or for a special officer*, meanwhile continuing to be observant; but *not* speak to the suspected one *or do anything which could be construed as an accusation* or suggestion of arrest. When the special officer appears and takes the case in hand, to cease observation and *withdraw absolutely* from the case. To do all this with *as little notice as possible.*

(*c*) If goods are missed from the stocks, to *report the fact promptly to the department chief and to the superintendent's office.*

Manifestly, the selling forces can not keep account of stock—of what is sold and what should remain at the close of the day. *But the subconscious faculties come to the aid of the thoughtful and observant.* Those who endeavor to fulfill such a duty conscientiously will intuitively feel and note the fact when what has been committed to their care is imperiled or has improperly disappeared. *The earnest desire and will to safeguard one's charge is the first essential to becoming a good "guardian."*

March, 1914.

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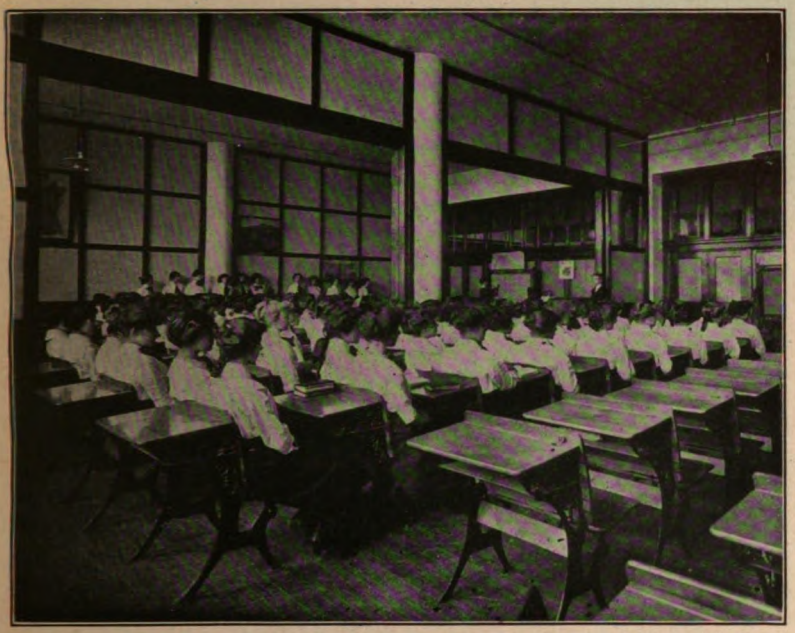

A. EMPLOYEES' RECITATION ROOM, JOHN WANAMAKER, PHILADELPHIA.

B. EMPLOYEES' LUNCH ROOM.

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A. EMPLOYEES' BUGLE CORPS, JOHN WANAMAKER, PHILADELPHIA.

B. EMPLOYEES' GYMNASIUM.

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No. 197. EFFICIENCY BULLETIN.[1] January 18, 1915.

FRIENDS SHOPPING TOGETHER.

(For the use of floor superintendents.)

(During the dull season we shall again have time to study some of the interesting questions of salesmanship. One of the points that we have not taken up as a body is that of two friends shopping together. The two incidents given below, or others that you will probably have in mind, may serve as illustrations of the way in which two customers can in an indirect way be a real help to the salesperson in getting clues to what a customer wants. The list of questions at the end you may find suggestive for getting your people to analyze the illustrations given.)

I. Two customers were talking as they entered the costume department.
First customer: "I must have a silk dress that I shall be able to wear to school later. I can't afford to pay laundry bills for wash dresses."
Second customer: "I suggest navy blue."
Salesperson (approaching): "Something in navy blue for school?" She shows a navy blue crêpe de chine dress, pointing out that it is practical and not too dressy, but is brightened up by the white collar and vest. This dress was exactly what the customer wanted, and she took it at once.

II. Two customers stood directly in front of a salesperson for some time looking at bottles of German cologne and talking about them. When the salesperson finally spoke, she said: "Can I help you?"
Customer (to salesperson): "I should like something new in toilet water or cologne." (To friend:) "I like good toilet articles and am truly extravagant in buying them."
Salesperson: "Here's a good cologne—60 cents; larger size, 90 cents."
Customer: "What have you in violet?"
Salesperson silently brought two bottles, one at $1.75 and the other at $2.25.
Customer: "I wish I could smell these."
Salesperson: "They are not open."
Customer: "I don't like to put $2.25 into something I might not like, so I'll wait."
Salesperson puts away bottles.
Customer (to friend): "I wonder if this powder is good? I have to be careful, for it often irritates my skin."
(No response from salesperson.)
Customer (to friend): "Aren't these bottles of smelling salts attractive? I have always liked them."
(No response from salesperson.)
Customers left without purchasing.

Suggestive questions for the discussion.

I. What clues were given in the first sale?
How did the salesperson take advantage of them?
What was shown by the salesperson's first question?
Why was it possible for the salesperson to suit the customer with the first dress shown?
What was the probable effect of this sale on the customer?

[1] William Filene, Boston.

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II. What clues were given the second salesperson?
What do you think of the selection of merchandise?
What reason had the salesperson for supposing that this customer would be interested in seeing and hearing about the new things?"
What opportunities were lost?
Why is information that customers give us when talking to one another often more useful than what they tell us directly?

No. 150. EFFICIENCY BULLETIN. December 30, 1912.

THE TECHNIQUE OF SELLING.

The customer who is just looking.

In the stress of Christmas business perhaps no customer has been more often seen than the one who was "just looking."

If our Christmas experience has been valuable to us, we should know better how to deal with the person who answers us in this way when we offer to be of service.

Because many of us have felt such cases hopeless, it should be of value to us to know what some of our people are doing to turn a customer of this kind into a purchaser. One salesperson reports the following case:

A few days ago a customer was passing through the machine-made dress department, and stopped to look at some dresses on the racks and forms. I addresed her, but she gave the often-heard answer, "No, thank you, there's nothing in particular. I'm merely looking at the dresses as I'm passing through." I noticed, however, that she continued to look, and thinking perhaps to get her interest, I selected one or two of the *most attractive models* I could find, and showed them to her, incidentally remarking about the style, quality of material, and workmanship. The customer showed interest at once, asked several questions about the dresses in general, and finally remarked, "I wonder if you have anything pretty, suitable for an elderly lady?" Several models were shown, all of which pleased the customer. "I think that is just what I want for a gift for my mother. I'm not prepared to buy to-day, but I shall be in again."

The next day the same customer returned and bought a dress.

There was a customer who was looking for "nothing in particular," but who really wanted something.

Do you think that it is fair to infer that the customer who is "just looking" will buy if she finds what she wants?

If you think she will, is there any customer to whom we should be more ready to show our merchandise in order that she may purchase with us rather than elsewhere?

Customers have many times complained of our store because salespeople *would not show merchandise.* May not this account for loss of trade with the "looking" customer?

Do you agree with the method used by the salesperson in the above case when she picked out the *most attractive model* she had in order to get the customer's interest and also to get the cue to what the customer was really "looking" for?

Conferences of operating force.—In addition to the buyers' conferences with members of the sales force, conferences of the members of the operating force are also desirable.[1] At weekly conferences of

[1] Bernice M. Cannon. (See p. 30.)

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the elevator operators rules for operating, business decorum, complaints of customers, and liability laws may be discussed. At weekly conferences of the markers there may be discussed the subjects of textiles, color and design and the most efficient way of doing their work. Conferences may also be held at which the floor clerks who are assistants to the floor superintendents discuss the problems which come up in their work and make the experiences of each one of value to the rest.

Lectures.—Some department stores, in their efforts to educate their employees, place chief reliance upon lectures on store topics, which are delivered to the employees at regular intervals by supervising officers. Some of the subjects on which such lectures are delivered are the following: "Approach," "deportment," "lookers," "system," "directing customers," "suggestive selling," "enthusiasm," "courtesy," "loyalty," "time," "cooperation," "errors," "advertisement," "service," "indirect advertising," "industry," "knowledge of merchandise," "care of merchandise." "wastes in business." "store directory," and "store system."

Bundle wrappers.—The service instruction for bundle wrappers may be covered in the five lessons given below, to be followed by a written examination.[1] The efficacy of the instruction may be increased by giving to each girl who passes the written examination an increase in her salary of 50 cents per week and by offering a prize of $1 to the girl who receives the highest grade during the month.

FIRST LESSON.

United States coin.
United States currency.
Canadian.
Counterfeit coins.
Money test.
Comparative size of gold coins.

SECOND LESSON.

Credits—cash and charge.
Merchandise certificates.
Bank checks.
Postal and express orders.
Home work—preparation of part-payment sales checks.

THIRD LESSON.

Part-payment checks.
Relief—noon, incidental, part-time.
Disposition of several parts of sales checks.
Home work—preparation of due package check.

FOURTH LESSON.

Due package.
Inspection of merchandise.
Correcting and reporting errors.
Wrapping.
Mail and telephone orders.

FIFTH LESSON.

Transfers.
Lost and found parcels.
Authorization—O. K.
  Why necessary.
  When is floorman's O. K. demanded?
  When is head of stock's O. K. demanded?
What to do in case of fire.

[1] W. S. Westhaper. (See p. 30.)

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Store system instruction.—Every newly-hired sales person requires detailed instruction in the details of the store system, and especially in the preparation of the different kinds of schedules before she is given a sales book and assigned to a selling section. This instruction is generally given from 8.30 to 9.30 each morning. New employees are sent to this instruction room once before they are assigned to a selling section and on at least two subsequent days. The older sales people are sent to the instruction room whenever the aisle manager observes that they do not understand the principles of store system and schedule writing needed by them in the performance of their duties.

The following is a detailed description of the various schedules in use in most stores. To this are added suggestions for the order in which this schedule may be treated in lectures.

LECTURES ON VARIOUS SCHEDULES FOR SALES PERSONS.

FIRST LESSON.	SECOND LESSON.
Cash sale: "To be taken."	Cash transfer sale.
Cash sale: "To be delivered."	Charge transfer sale.
Charge sale: "To be taken."	Mail order—Cash, charge, samples.
Charge sale: "To be delivered."	Part cash—Part C. O. D.
Collect on delivery.	Due package.

Elementary salesmanship.—Elementary instruction in the principles of salesmanship is generally confined to the elucidation and application of the fundamental psychological principles involved in making a sale.[1] The methods of attracting the attention of the customer by the sales person's personal appearance, expression, and deportment are shown; the methods of arousing the customer's interest by the proper use of the voice, by an adroit opening thought and by the saleswoman's knowledge of human nature are explained; the means of arousing the customer's desire by a skillful use of the sales person's knowledge of the merchandise and an adequate description of the goods are presented to the novice and the manner of influencing the customer's resolve to purchase by mentioning the price and closing the sale demonstrated in detail.

Let an actual occurrence illustrate. It will be easy to recast it and apply it to any branch of merchandise.

The beginning: A pretty tie in the window of "Trois Quartiers."
The hero: A salesman, dressed in good taste, courteous, English-speaking.
Yes; customer will take the tie.
"Thank you! These, too, are handsome—n'est-ce pas?"
Two of them prove quite too pretty to ignore.

[1] W. H. B. Kilmer. (See p. 30.)

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"Tourists are liking this new tie just now."

"Do you like these new shades? They are going to be popular this fall."

"This new full-dress tie is dignified; don't you think so?"

Six ties are bought instead of one.

Then, white gloves and the newest muffler. The new dress tie clearly required them.

Certain half hose came forward that harmonized beautifully with some of the first-chosen ties.

A new leather belt was good to replace the shabby one in use.

"Collars? You see this little difference here? They are distinguished—would increase the effectiveness of the new ties."

Purchaser remembers there were some raw edges returned with last laundry.

A dozen of the new collars added to the list.

"Thank you; no!" with a laugh; "I simply mustn't let your goods tempt me further."

Notice there was no pressure to sell; no direct questioning of the customer. The goods were brought forward chattily, without haste or awkward pause, as an amateur might display things he loved and tell of their interest for himself.

The *goods* were the salesman; not the man.

The following incident is cited as a clever exhibition of salesmanship:

"May I ask, did you find what you wanted?"—with a courteous smile—one of our assistants questioned a lady and gentleman just leaving his section.

"No; I didn't. I guess I am looking for something that doesn't exist," said the lady.

"Won't you be so good as to tell me what it is?"

Article described.

"I'll have it made for you."

"Thank you!—but we leave town this afternoon."

"But perhaps you come back by way of Philadelphia?"

"Yes; after a week at Atlantic City."

"Good! May I make the bag? It will be here for you in just one week."

The bag was ready and pleasing; the sale was $28.50 for this bag, and $17 for two other articles selected in addition.

Then the lady spoke of a hat.

Our assistant directed them to the millinery floor, suggesting they ask for Miss ———, who, he could assure, would give good service. He then quickly got the millinery floor manager on the phone, telling him that Mrs. and Mr. ——— were coming up and would probably ask for Miss ———.

The floor manager was able to recognize the customers. He called them by name and put them into good hands, explaining that Miss ——— was on vacation. A hat was sold, and other purchases followed. The total amount involved was some hundreds of dollars.

"*A wonderful store! The kind we like to deal with, and never find so good anywhere else,*" said these friends in bidding good-by. But *we* say, simply, *good storekeeping.*

This subject may also be set forth to the clerk in bulletins, such as the one that now follows:

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No. 186. EFFICIENCY BULLETIN. May 25, 1914.

INTERPRETING MERCHANDISE FOR THE CUSTOMER.

Merchandise has a history. Much has happened to it before it reaches our hands. It may have come from a remote part of the globe—from Australia, India, Russia, France, Japan—and passed through many lands on its way to us.

Its present history begins with us; its future depends upon us.

The sales person makes its acquaintance and, to a certain extent, studies it. She studies it chiefly from the point of view of the present; that is, in terms of stock—such and such a price, style, color, size, in such and such a location.

The average customer on entering a shop has the future point of view. She has not defined the article she comes to buy; she may know nothing of its past or of its present existence in terms of stock. She has, however, a *use* for it. *We* determine whether that need is to be supplied. Thus there is a mental gulf between the two points of view.

The sales person who approaches with questions of price, style, color, etc., shows that she has not studied and grasped the possibilities of her merchandise, the uses to which it can be put, its *future*. Figuratively speaking, she does not budge one step to meet the customer, but attempts the dangerous task of making the customer bridge the gap and walk every step of the way to her till they are on common ground.

To illustrate: A customer asked to be shown a coat to wear motoring over a simple silk dress that she had on. She was using her suit coat, and so wished to purchase for immediate wear. The sales person said, "We haven't anything; they have all been closed out." The customer, in surprise, asked, "What kind of a coat do you think I want?" and persisted in being shown something. The merchandise selected was so inappropriate that she went away without buying. While making another purchase she chanced to remark how odd it was that in such a large store she could not find a coat for her purpose. She was persuaded to try again and did find just the article that she could use. Moreover, this was her first visit to the store, and before she left her cash sales amounted to about $100.

An incident like this is peculiar to no one department. It is happening in all, and is a problem for all. The solution lies in studying our merchandise from every point of view, past, present, and future—feeling its *human interest and possibilities.*

The more we interpret its past as well as its present, the better able are we to interpret its future. We *must* study its future—the individual and occasion it can best serve. If we study our merchandise in these ways, the right customer will appear and we shall have the right merchandise already selected for her.

Social aspects.—In all this service instruction the social aspect should not be neglected. An attempt should be made to stimulate interest in the larger aspects of familiar things, to set personal as well as business standards, to broaden the girls' outlook by increasing their personal resources, to develop a high degree of personal efficiency by instruction in hygiene, to develop the economic sense by a discussion of the meaning of capital and wages, and to maintain a proper balance between income and expenditure by planning personal budgets.

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Textiles.—Instruction in textiles usually includes a full exposition of the production and manufacture of cotton, linen, silk, wool, hemp, jute, and ramie from the raw material through all the stages of manufacture to the finished product. Instruction is also frequently given in color and design. The instruction in color includes an exposition of the groups of color, tones, tints and shades, and color harmonies. In the study of design the sales people receive instruction in rythm, balance, and unity, in suitability and uses, and in the practical applications of color and design in house furnishing and costumes.

No. 171. EFFICIENCY BULLETIN. October 17, 1913.

SATISFACTION VERSUS SELLING.

This store was organized and equipped not for one day, one year, or one lifetime, but for many. To insure its future we must look beyond the immediate sale and sales total of the day.

We may sell to a customer, or we may satisfy her—the two are not yet synonymous. A sale may be made though our efforts are half-hearted. A customer can be made satisfied only by earnest, intelligent effort which calls to aid *all the resources that the store offers.*

To illustrate:

A customer came to us to buy a hunting outfit. She went first to the shirtwaist department and explained that she wished something for the mountains. She knew that she wanted a flannel waist, but could not give the exact style. Those shown her were not what she wanted, and so she went away without purchasing when the sales person said, "*These are all we have.*"

She then tried to get a skirt, and again did not see what she wanted, and was told, "*These are all we have.*"

She abandoned the idea of getting anything for herself and looked for riding outfits for her two daughters, 8 and 10 years old. She met with the same reply.

This customer was leaving our store, which is the largest specialty shop in New England, without finding what she wanted.

Fortunately, she was intercepted. The result was that she purchased in the boys' department just the waist she wanted, found in another department a heather-down skirt such as is used exclusively for hunting because it does not wrinkle or shrink under any weather conditions; bought in the boys' department two corduroy suits which were excellent for riding habits, and added to these bloomers, garters, storm shoes, and leather gaiters.

In short, *we had what she wanted*, but she was leaving us to buy elsewhere, because of our lack of resourcefulness.

Arithmetic.—The instruction in arithmetic for saleswomen is usually most elementary, being confined to instruction in addition by the quickest methods for use on sales slips and to instruction in simple fractions, such as are used in selling yard goods and parts of dozens. Most of the problems used in this instruction are those which actually arise during the day in the store, and the object of

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the instruction is to familiarize the saleswomen with the and easiest methods and to dispel the fear of this subject. A instruction is sometimes offered in the principles of subtracti in counting back change, and in the principles of percent ployed in the calculation of discounts.

IV. CONTINUATION INSTRUCTION.

Continuation classes.—The compulsory education laws of States prescribe that when a boy or a girl leaves school for th pose of going to work at the minimum age at which he is perm to do so, he must attend a continuation class for one or two ye complete his education. These laws also generally impose employers the obligation of dismissing such employees at a suffici early hour to enable them to go home, take their supper, and re at the evening continuation school at the commencement of the sion. Because of the inconvenience of complying with this p vision of the law, many employers prefer to give their emplo the benefits of continuation instruction in their stores in the e morning when the business in the stores is normally light. In th cases the stores furnish the room, light, heat, and equipment, a the educational authorities provide the teacher and the supplies.

Morning instruction.—Comparatively few customers visit depa ment stores in the early morning hours, and the service of the st is not interfered with if the junior employees are given instructi during these hours. The usual school hours are from 8.30 a. m. 10 a. m., and the most satisfactory arrangement is one in which on third of the junior employees attend each day, thus giving to ea employee two consecutive school days each week.[1] The school year i furthermore frequently divided into three terms—a fall term, ex tending during October and November; a Christmas recess during December; a winter term during January, February, and March; and a spring term during April and May.

Subjects of curriculum.—Arithmetic, spelling, penmanship, and English are the academic subjects most generally taught in continuation classes. A discussion of current events is sometimes included in the course of study; and instruction in civics, ethics, and public speaking is occasionally provided. In large establishments in which the number of pupils justifies it the employees are divided into two or three grades, in accordance with the extent of their previous education.

Secondary instruction.—A few employers provide continuation instruction of a character similar to that furnished by commercial evening high schools. The subjects of instruction include business

[1] W. D. Earnest. (See p. 30.)

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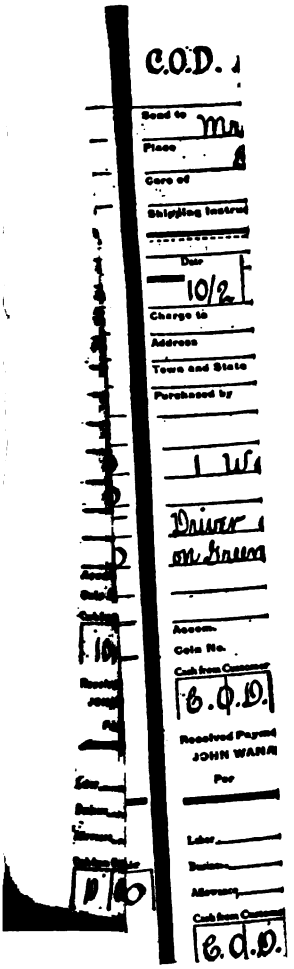

EMPLOYEES' DISCOUNT SCHEDULE

Should show 10% of the total purchase price deducted, showing net total as the amount of sale on both body of schedule and voucher, with the name and number of the employee on the back of the schedule, and the aisleman's signature.

EVEN EXCHANGE SCHEDULE

Make out as shown. Have signed by aisle manager, and stamped by cashier same as paid schedule.

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PAID TAKEN SCHEDULE

Differs from a *Paid Send Schedule* in that the *Send Part of Original* and *address part* of *duplicate* are both left in book.

PAID SEND SCHEDULE

Detach all of the original and body of duplicate, *leaving address part of duplicate in book*, showing amount of sale. *Send* bo[illegible], properly fastened (exposed), with merchandise to inspector's desk.

In all paid sales keep the inspector's voucher, stamped by the cashier, indicating which cashier you paid the money to. THIS IS YOUR RECEIPT. At the close of the day you must have a voucher for each paid sale; place these in a voucher bag, seal it up, note the date, section and sales number on the face of it, and hand it to some one who collects them for your section.

CHARGE SEND SCHEDULE

All of original and voucher of duplicate detached and sent with goods to inspector's desk.

The duplicate voucher is left on goods for identification.

CHARGE TAKEN SCHEDULE

Must be signed by the aisleman. *Except* that a customer with a coin is entitled to merchandise to the amount of Ten Dollars (with the coin number properly noted) without the aisleman's signature.

ALL of ORIGINAL and VOUCHER [illegible] DUPLI[illegible]

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arithmetic, business law, business geography, business English, bookkeeping, and spelling, with occasional additional instruction in civics, history, and public speaking.

JOHN WANAMAKER COMMERCIAL INSTITUTE, NEW YORK.

COURSE OF STUDY

Senior class.

Spelling.

Words selected by teacher from the daily papers.

Arithmetic.

Text: A Practical Business Arithmetic. Moore & Miner.

Banking and bank discount.
Stocks and bonds.
Partnership.
Exchange (domestic and foreign).
Customhouse business.
Rapid addition (part of each lesson).

Business methods.

Text: Business Methods. Teller & Brown.

	Chapter.
Banking, bank discounts, and drafts	3–5
Merchandise sales, stocks, and bonds	10
Partnership	11
Insurance	11
Postal information	6
Railroad and express business	8
Contracts, leases, and bonds	9

The above subjects will be required. The first four will be taught when the respective subject is introduced in arithmetic.

Business law.

Text: Bly's Business Law.

	Pages.
Negotiable papers	33–54
Interest and usury	106–108
Partnership	72–76
Insurance	98–101
Corporations	77–83
Contracts	6–30
Common carriers	89–92
Nuisance	158–159
Highways	160–165

These subjects will be required and should be taught when similar subjects are introduced in arithmetic.

Business geography.

Text: Geography of Commerce and Industry. Rochelau.

This subject embraces a study of the distribution of the vegetable, mineral, and commercial products of the United States, its transportation facilities, telephones, telegraphs, and submarine cables. In each of these the relation of the United States to foreign countries will be shown.

Correspondence.

Chapter 1, Business Methods.

The form and construction of business letters will be studied critically and followed by original work, which in turn should be criticized by the teacher. The pupils should be encouraged to bring letters to class to study.

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Civics.

Text: Syllabus of Civics. Boynton.

Public speaking.

Original work in the preparation of briefs and their delivery before the class. The research should be along the lines suggested by the study of civics and business methods.

Bookkeeping.

Modern, illustrative.

United States History.

Text to be developed from and illustrated by means of lantern slides of paintings, bas-reliefs, and prizes found in the Capitol at Washington, showing the development of the country and Government. The course to culminate in a trip of the graduating class to Washington.

V. CONCLUSION.

Prevocational training.—Some department stores offer prevocational training to high-school students by calling upon these high schools for students for stock, selling, marking, and office work on busy days and in emergencies. They also offer a laboratory course in selling for two hours on Friday afternoons to high-school girls who are taking the salesmanship course in the high school. While these high-school students are in the store, the girls whose places they take are receiving instruction in continuation classes. The head bookkeepers of some stores give courses of instruction in practical bookkeeping in the high schools, and the head cashiers sometimes give similar instruction in the work of department store cashiers and examiners, offering permanent positions in the stores to the pupils who show special aptitude for department store work.

Training of teachers.—So great has become the demand for teachers in department stores, continuation schools, and high schools that a training class for teachers has been established in Boston by means of cooperation between the Union School of Salesmanship and Simmons College of that city. The students spend Mondays in selling in department stores, the mornings of the rest of week in observation of the theory and practice of teaching in the Union School of Salesmanship, and the afternoons in technical courses at Simmons College. About 30 graduates of this training class are at present engaged in teaching salesmanship in department stores and in vocational and prevocational classes throughout the United States. These training classes were founded by and are still under the direction of Mrs. Lucinda W. Prince, who is the mother of salesmanship instruction in American department stores.

The schedules of classes in the Union School of Salesmanship, both for saleswomen and for the teachers' training courses, are given below:

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SCHOOL OF SALESMANSHIP.

Schedule of classes for saleswomen.

Daily session.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
8.30 to 11.30	Salesmanship. Textiles. Lecture from store representative.	Arithmetic. English. Demonstration sales.	Sale slip. Color and design. Hygiene.	Arithmetic. Salesmanship. Textiles.	Arithmetic. Merchandise. Economics.

COURSE OF STUDY.

Salesmanship:

Discussion of store experiences with application of principles involved.
Demonstration of selling in class with class criticism.
Lectures by representative business men and women on different phases of retail selling.
Class conferences on important salesmanship subjects: Care of stock, approaching a customer, etc.
Individual conferences with girls on points observed in teachers' "follow-up" work in the stores.

Textiles:

Fibers—wool, silk, cotton, linen.
Manufacture.
Fabrics.
Commercial geography.

Color and design:

Recognition of color tones.
Color combinations.
Appropriate use of colors.
Principles of design applied to dress and furnishings.

Economics:

Relation of capital and wages.
Relation of expenditure to income.
The spending of money.
The saving of money.

Arithmetic:

Sale-slip practice and store system.
Drill in addition and multiplication.
Fractions.
Percentage.
Cash accounts.
Business forms.

Personal hygiene from the point of view of business honesty:

Hygienic dressing.
Personal appearance.
Bathing.
Sleep.
Ventilation.
Diet.
The nerves, etc.

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Practical talks:

Besides the lectures on business subjects, practical talks are given on such topics as—

Vocational training.
The Consumers' League.
Books and reading.
The minimum wage.

TEACHERS' TRAINING CLASS, 1913–14.

MORNING.

Monday.	Tuesday.	Wednesday, Thursday, Friday, Saturday.
Selling in department stores.	Study of merchandise, and store system in cooperating stores.	Observation, theory, and practice of teaching the following subjects in the salesmanship school: Textiles. Color and design. Hygiene. Salesmanship. English. Merchandise. Economics. Arithmetic.
	Supervision of store work of pupils in salesmanship school.	Daily conference with the director on the morning's work.

AFTERNOON.

Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
Selling in department stores.	Economics. Industrial history.	Education. Textiles.	Applied psychology. Education.	Textiles. Textiles.

The afternoon work is at Simmons College and continues during the year with the exception of economics, which is a six weeks' course in the fall.

Various mills, factories, and schools are visited in connection with the above courses.

VI. APPENDIX.

Department Store Course of Study.

FIRST WEEK.

First lesson:

(1) National movement for vocational training.
(2) Salesmanship in colleges, high schools, commercial schools, insurance companies, etc.
(3) The position of saleswoman as a representative of the firm.
(4) Opportunity for service.

Second lesson:

(1) The competition of to-day.
(2) Essential qualifications of a good sales person.

Third lesson:

Approach to customer.

Fourth lesson:

Textiles.

Fifth lesson:

(1) Discussion of selling experiences.
(2) The treatment of price.
(3) What is salesmanship?

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SECOND WEEK.

First lesson:

(1) "The girl and the selling game." Reading and discussion.
(2) Suggestion in selling.

Second lesson:

The demonstration sale.

Third lesson:

(1) Habit.
(2) Discussion of newspaper article on selling.

Fourth lesson:

Talking points of merchandise.

Fifth lesson:

Silks.

THIRD WEEK.

First lesson:

(1) Type of customer.
(2) The "just-looking" customer.
(3) The customer who wants to look elsewhere.

Second lesson:

Care of the feet and footwear.

Third lesson:

Demonstration sale.

Fourth lesson:

(1) The Dry Goods Economist.
(2) Little points in selling.
(3) Discussion; experiences.

Fifth lesson:

Lecture: "Color in dress."

FOURTH WEEK.

First lesson:

(1) The undecided customer.
(2) The man customer.
(3) The set-price customer.
(4) Tired customer.

Second lesson:

(1) Remarking to another person while serving a customer.
(2) Knowledge of stock.
(3) Service talk, from "Store chat."

Third lesson:

(1) The use of English in selling.
(2) Adjectives used in describing merchandise.
(3) The voice.

Fourth lesson:

(1) Demonstration sale.
(2) Types of customer—The tired—Fussy.

Fifth lesson:

Cotton.

FIFTH WEEK.

First lesson:

Lecture: "Color contrast and part contrast."

Second lesson:

(1) Store organization.
(2) Merchandise lesson—Buttons.

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Third lesson:
Lecture—Buying.
Fourth lesson:
Waste in business.
Fifth lesson:
Narrowing the sale.

SIXTH WEEK.

First lesson:
Lecture—Color balance.
Second lesson:
Visit to the Warnright Knitting Mills.
Third lesson:
(1) The proper handling of merchandise.
(2) Advertising; our relation to this end of the business.
(3) Store directory.
Fourth lesson:
Written review.
Fifth lesson:
Oral review.

PRINCIPAL DEPARTMENT STORE EDUCATIONAL DIRECTORS.

No.	Firm.	City.	Educational director.
1.	The Hub	Baltimore	Maud Husted.
2.	William Filene	Boston	Bernice M. Cannon.
3.	William Hengerer	Buffalo	Mildred Robinson.
4.	Sears-Roebuck Co	Chicago	G. H. Miller.
5.	Halle Bros. Co	Cleveland	Isabel C. Bacon.
6.	William Taylor & Son	Cleveland	W. S. Westhafer.
7.	L. S. Ayres	Indianapolis	Olma Steeg.
8.	Broadway Store	Los Angeles	W. H. B. Kilmer.
9.	Edward Schuster	Milwaukee	Alice F. Brown.
10.	L. Bamberger & Co.	Newark	Marjory Stoneman.
11.	Bloomingdale Bros	New York	Anna Howell Wilcox.
12.	Lord & Taylor	New York	Beulah E. Kennard.
13.	John Wanamaker	New York	W. D. Earnest.
14.	Gimbel Bros	Philadelphia	R. H. Preston.
15.	Emporium	San Francisco	M. V. Greene.

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SERVICE INSTRUCTION OF TELEPHONE COMPANIES

I. THE OPERATOR.

Divisions of the telephone service.—The employees of telephone companies are usually divided into five departments: The commercial department, which makes contracts with the patrons of the company and collects payment for the service rendered; the accounting department, which keeps the books and accounts of the company; the engineering department, which attends to the larger technical problems of the company; the traffic department, which consists of the operating force; and the plant department, which installs and maintains the physical equipment. No service instruction is given to the employees of the engineering department, because they are all well equipped with technical knowledge before entering the employ of the company, and no service instruction is given to the employees of the commercial and accounting departments, because their duties are simple and nontechnical. Detailed instruction, however, is given to the employees of the traffic and plant departments.

Importance of operators.—Electricity, equipment, and operators are required for furnishing telephone service. Of these three elements, the operator is the most important, and to secure operators possessing the necessary qualifications the telephone companies make the work immediately remunerative by paying the operators while they are learning, offer employment to all who have learned the business, and offer to satisfactory employees permanent employment unaffected by dull seasons or an overstocked labor market.

Hours of service and advancement.[1]—Since telephone service is continuous throughout the 24 hours, operators are required to work as day operators at salaries from $6 to $12 a week, as evening operators at salaries from $7 to $13 a week, and as night operators at salaries from $8 to $14 a week. As an operator's value increases with her experience, a schedule of wage increases has been provided to furnish extra remuneration at the end of given periods. Furthermore, pref-

[1] New York Telephone Co.

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erence in hours of service is given to those who have been longest in the service. Operators of experience, possessing the necessary qualifications, are assigned to the higher positions of senior operators, information operators, and toll operators, and those who by their self-control, reliability, sympathy, ability, and cool-headedness demonstrate executive ability are promoted to the positions of supervisor at a salary of $15 a week and of chief operator at a salary of $25 a week.

Training of operators.—In the large cities the telephone company generally maintains a training school for operators, with a principal and a corps of instructors. In the smaller cities and towns the new operators are instructed by a local supervisor designated by the chief operator, who follows as closely as possible the course of study used in the operators' training schools of the larger cities. The course of instruction usually covers four weeks and the students are paid not less than $5 a week while learning. Instruction is given by means of lectures, supervised study periods, catechism, recitations, written examinations, and demonstrations on a switchboard of the same type as those used in the regular exchanges. During these demonstrations the instructors personate subscribers and the students handle the calls as operators.

Qualifications demanded.—The applicants are subjected to a careful examination of their qualifications. They must be between the ages of 16 and 23, and at least 5 feet in height. Inquiry is made regarding the applicant's physical condition by questioning her regarding her present state of health, the illnesses she has had in recent years, whether she has ever suffered from any nervous trouble or fainting spells, and when she had occasion to consult a physician. No applicant is considered eligible if her general condition of health is bad, if she shows evidence of skin disease, or is afflicted with a physical deformity of hands or body that would in any way interfere with the proper performance of her work. Each candidate is required to read with each eye the letters on a standard test chart placed about 10 feet from her and to name the colors painted on the test chart. Her hearing is tested by observing the applicant while she is listening, particularly when questions are put to her in a low tone, and by asking her whether she is subject to earache, or to catarrhal trouble, or whether she has had abscesses in her ears or has noticed any trouble with her hearing. In addition to being given the reading test, the applicant is also required to repeat a list of numbers compiled for the purpose. During this test the clearness and distinctness of the applicant's enunciation and the accuracy and carefulness of her pronunciation as well as any impediment in her speech are noted.

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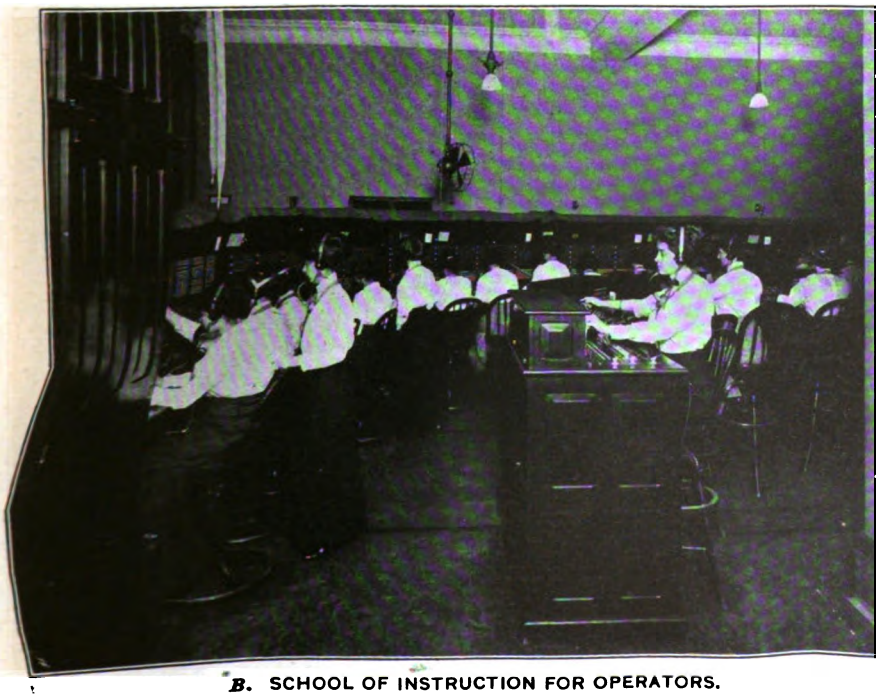
A. EXAMINING AN APPLICANT, NEW YORK TELEPHONE CO.



B. SCHOOL OF INSTRUCTION FOR OPERATORS.

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A. REST ROOM FOR OPERATORS, NEW YORK TELEPHONE CO.

B. LUNCH ROOM FOR OPERATORS.

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As far as may be practicable, applicants are required to have completed a course of study in a public school or its equivalent in a private school. Consideration is also given to courses of study in night school and business school and to experience gained in business offices and other places of employment. Each applicant is required to read aloud a selection from the General Regulations for Operators. The examiner notes whether this is done clearly, accurately, and with expression, and whether the applicant gives evidence that she has a correct understanding of the subject matter. He notes also whether the applicant speaks grammatically, and whether her speech is free from the current slang. The personal characteristics and mannerisms of the applicant are also observed and judgment is formed regarding her ability to think clearly and quickly and to act promptly and intelligently.

Candidates must possess an even temperament, a pleasing courteous manner, a neat businesslike appearance, good moral character, a willingness to work at night and on holidays, and possess general reliability.

Selection of applicants.—While waiting to be interviewed in reference to appointment and during the interview, each applicant is closely watched. The examiner notes whether she is quiet and dignified, pleasant in manner, refined in appearance, and courteous in speech. Tidiness and cleanliness of clothing and person, as well as the absence of frivolous appearances, are observed. The applicant's reliability is determined by judicious questioning, by observing her manner of talking and of replying to questions, from her general appearance and by ascertaining whether she is living with her parents and if not, the reason for this and the name of the person with whom she is making her home. Two reliable references are also required.

The following form shows the scope of the initial application.

NEW YORK TELEPHONE CO.

APPLICATION FOR EMPLOYMENT.

FEMALE.

Date _____, *191*__

Name in full_____ Address_____
Age and date of birth_____ Married_____
What school did you attend?_____ What class were you in?_____
What position are you applying for?_____
Is your eyesight good?_____ Is your hearing good?_____

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FORMER EMPLOYERS.

(Give the names of the firms you have worked for, beginning with the last.)

Name_____ Address_____
Position held_____ How long employed?_____
Date of leaving_____ Wages or salary?_____
Why did you leave?_____
Name_____ Address_____
Position held_____ How long employed?_____
Date of leaving_____ Wages or salary?_____
Why did you leave?_____
Have you ever been employed by any telephone company?_____
Have you any relatives employed by this company?_____
Introduced to this company by_____

REFERENCES.

Name.	Address.	Business.

REMARKS.

(These spaces are not to be filled in by applicant.)

_____

_____

II. OPERATORS' SCHOOL.

Central office operators, upon entering the employ of the telephone company, are given a four-weeks' course of instruction in telephone operating at the operators' school. In this school each class of students is placed in charge of a classroom supervisor. The course of study consists of lectures on operating practices and in the study of operating instructions issued for the guidance of central office operators. Each supervisor assigns the work to be covered during the study period and hears the recitations. In some cities the lessons, in leaflet form, are given to the students one at a time on the evening preceding the day they are to recite, and at the same time the instructress explains the lesson. On the following day the students give an oral recitation in the classroom, and later they are placed at the school switchboard, where the lesson is taught practically.

Scope of instruction.—The course of instruction embraces the organization, the functions, and the importance of the different officials and departments for the purpose of administration and operation, as well as the general rules governing the conduct of operators in their relations to the public, to their superiors in office,

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and to each other. The student operator is taught the construction of the telephone instrument, the switchboard, and its central office auxiliary equipment by the use of telephone apparatus with all its interior works exposed and by the use of graphic charts depicting on a large scale the details of the minute parts of this apparatus. The whole make-up of an operating position at the board is shown and explained to the students, who are taught just what happens in every part of the plant from the time one subscriber who wants to reach another lifts the receiver of his telephone from its hook. The student is carried through the process of answering the subscriber's signal, taking his order, calling the number wanted, reporting busy lines, and "don't answers," to the point when he hangs up his receiver and thereby signals that he is through talking.

Lectures on operating practice.—A course of lectures on operating practice or the rules for handling all classes of calls is delivered by an instructress who is aided by a demonstrating section of a telephone switchboard and by charts and diagrams. The student must master the phraseology of this practice which has been adopted by all telephone companies after years of study and which is so skillfully worded as to meet all operating situations with the brevity and clearness of meaning necessary to the speed of service demanded by the public. This lecture course includes also instruction in the different classes of subscribers' service, the privileges to which each class entitles the subscriber, the method of handling business from automatic pay stations and prepayment subscribers' service involving the deposit of coins and the detecting of signals that the proper coin deposits have been made, the metering of calls from measured service subscribers' stations and pay stations, and the handling of toll and long-distance calls.

The thoroughness of such a course is apparent from the following typical courses of the New York and Chicago telephone companies.

NEW YORK COURSE OF STUDY.

FIRST WEEK.

1. General introduction to the business. Explanation of the hours, salaries, and regulations relating to attendance and deportment.

Answering, taking and repeating calls, local multiple calls, ringing, and rural line calls.

2. Explanation of the classes of service.

Central office abbreviations, writing tickets, registering, and requests for charges (on calls completed by "A" operators).

3. The method of handling trunk calls.

Direct circuit trunk calls, tandem circuit trunk calls, and ring-down trunk calls.

4. The method of handling calls (continued).

5. The description and use of toll boards.

Toll board two-number calls and toll board particular person calls.

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6. The meaning and use of long-distance toll boards.
Long-distance two-number calls and long-distance particular person calls.

SECOND WEEK.

7. The organization of the company.
Calls for official lines, information calls, "bell rang" reports, complaints, and equipment trouble.
8. Requests for charges and rates, abandoned calls, supervising, disconnecting, overlapping operations, right of way calls, and clearing double connections.
9. Multiple marking calls and answering jack marking calls.
10. Emergency calls and denial of service for nonpayment.
11. Telegram calls.
12. Calls from multi-coin prepayment stations and calls from postpayment stations.

THIRD WEEK.

13. Busy calls, including reversed calls.
14. Delayed and don't answer and out of order calls.
15. Wrong number calls.
16. Restoring connections.
17. Miscellaneous conditions and traffic record (peg count).
18. Review work and necessary special instructions.

FOURTH WEEK.

The lectures during this week will be devoted to reviewing the work already done by the students while in the school and to examining students to ascertain whether or not they are ready for transfer to central offices.

CHICAGO COURSE OF STUDY.

1. The completion of local multiple connections.
   - Answering calls.
   - Taking and repeating calls.
   - Use of different parts of keyboard.
   - Ringing.
   - Testing.
2. Classes of service.
   - Line lamps.
   - Registering.
   - Tickets.
3. Method of completing trunk connections.
   - Direct circuit trunk.
   - Tandem.
4. Trunk connections.
   - Busies.
   - No trunks.
   - Ringing.
5. Trunk connections.
   - Ring-down.
   - Recording.
6. Long distance.
   - Particular person calls.
7. Organization and official calls.
   - Handling complaints and equipment trouble.
8. Supervision and disconnection.
   - Third party connected.
   - Right of way.
   - Charges.
   - Abandoned calls.
9. Multiple marking calls.
   - Answering jack marking.
10. Emergency calls and denied service.
11. Telegram calls.
12. Busies and reversed calls.
13. Don't answers and out of order.
14. Wrong numbers.
15. Restoring connections.
   - Local multiple.
   - Direct circuit trunk.
   - Tandem trunk.
   - Recording calls.
16. Traffic record.
   - "A" operators.
   - "B" operators.

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SUMMARY OF CHICAGO COURSE.

	Hours.
Operating switchboard practice	36
Voice training	6
Relief period	6
Recitation	44
Lunch period	10
Enunciation	12
Spelling exercise	4
Calisthenics (physical exercise)	5
Explanation of new lesson	15
Dummy multiple practice (chart and lap boards)	24
Hygienic lectures	4
Total number hours in school course	166

FIRST LESSONS IN TELEPHONE OPERATING [CHICAGO].

Lesson 5.

1. Q. If a call is received for "Information," what should the operator do?
   A. She should repeat, "Information," and establish the connection.
2. Q. If the calling party asks for a directory, what should the operator say?
   A. "I will give you the repair department."
3. Q. If the calling party states that his bell has been rung, what should the operator say?
   A. "Will you excuse it, please?" and if he does not hang up, she should repeat the phrase. If he does not then hang up, she should say, "There is no one on the line now."
4. Q. If he still remains at the telephone, what should the operator say?
   A. "Will you hang up, please?"
5. Q. If the calling party asks if his bell has been rung, what should the operator say?
   A. "There is no one on the line now. Excuse it please?" and if he does not hang up, she should repeat the phrase. If he does not then hang up, she should say, "Will you hang up, please?"
6. Q. If the calling party requests a ring on his line, what should the operator do?
   A. If the calling party gives his number, she should repeat the number. On individual lines, when the number plate shows the number, she should say "Yes, sir."
7. Q. If the calling party does not give his number, or the individual line has no number plate, what should the operator say?
   A. "Your number, please?", and then repeat it.
8. Q. If the calling party does not hang up after giving the call, what should the operator say?
   A. "Will you hang up, please, while I ring?"
9. Q. If in repeating the ring on the line the calling party states that he is an installer, what should the operator do?
   A. She should remove the plug from the answering jack and pass an order to the trouble operator, saying, "Ring on (station number)."
10. Q. If the calling party requests the panel and jack numbers, what should the operator do?
    A. She should refer to the panel number plate and answering jack number and give the information.

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11. Q. If the calling party says, "What line?" what should the operator do?
A. She should refer to the number plate or reverting chart and (1) on an individual line, give the line number, (2) on a two-party line give either station number and add, "Two-party," (3) on a four-party line give the circuit number as, "Circuit (circuit number)," or if there is no circuit number, give any station number and add, "Four-party."
12. Q. If there is no number plate or entry on the reverting chart, what should the operator say?
A. "No number plate."
13. Q. If the calling party requests the class of service, what should the operator do?
A. She should obtain it from the lamp cap opal and give it.

III. PLANT EMPLOYEES.

Selection of plant employees.—Although applicants for positions in the plant department are not subjected to a physical examination, they are selected with respect to their physical ability to perform the work for which they have applied and must be of good moral character. They must also be able to read and to write legibly, and should preferably have at least a common-school education. No written examination is given to applicants for employment.

Training of plant men.—Employees of the plant department receive instruction in the inspectors' and installers' school. All instruction is given in the form of extemporaneous talks by the teachers, with illustrations on the blackboards, but no text books. The course of instruction is divided into three grades. New men have one week of instruction in the first grade. At the conclusion of this course two written examinations are held and the men are sent out to work for a week or more before entering upon the instruction of the second grade. The course of instruction in the second grade covers eight days. The time which elapses between the second grade and the third grade varies and depends upon the ability of the man and the amount of work on hand. The instruction in the third grade covers two weeks. In addition to the technical instruction given in this school, lectures are delivered to the men on such subjects as "Safety," "Relation with subscribers," "Manner of approaching public," "Personal appearance," etc. Employees in the plant department are also supplied with 28 instruction books for their information and guidance. These instruction books are revised from time to time and are supplemented by plant instructions and by engineering bulletins. Cable splicers are given a special one-week course of instruction by the splicing supervisor. This instruction consists of a series of talks, the actual performance of the work of a splicer's helper, and an examination on the subjects covered in the course.

Below is given a typical course for the training of plant men in telephone companies, together with typical examination questions

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covering such a course. An examination paper from the training school of splicers' helpers of the New York Telephone Co. is also given as an example of examinations of this nature.

TYPICAL TRAINING COURSE FOR PLANT MEN.

First grade (new men—time, one week):

Elementary electricity and magnetism. Splicing (inside wire, soldering, bridle and sleeve splices, bridging connectors). Cable system and cross connecting. Color code and cable lacing. Protectors. Assembly of No. 20–S desk stand. Connecting up instruments. Desk stand and wall set instrument circuits. Bell adjustment. Entering wires. Operating switchboards and monitors. Examination. General instruction.

Second grade (time, seven or eight days):

Soldering wires to lugs. Bell operation. Bell adjustment. Generator. Induction coil. Transmitter. Receiver. Condenser. Desk-stand circuit. Assembly of No. 20 desk stand. Wall set circuit. Hotel set circuit. Trouble testing. Examination. Party-line bells. No. 50–A coin machines.

Third grade (time, two weeks):

Positive supervision switchboard—

Trunk circuit. Buzzer circuit. Cord circuit. Supervisory circuit. Operator's set. Machine key tripping circuit. Relay circuit. Wiring of all circuits. Trouble testing. Examination.

INSPECTORS AND INSTALLERS' SCHOOL—FIRST-GRADE EXAMINATION.

1. In what direction does the electric current flow?
2. What is a direct current?
3. What is an alternating current?
4. What are volts, amperes, and ohms?
5. What is a magnet?
6 (a). What is a permanent magnet?
   (b). What is an electro magnet?
7. Diagram of No. 20 D. S. connected to 101 set.
8. Diagram of No. 20 D. S. connected to 295 set.
9. Diagram of No. 85 set.
10 (a). What is in the bell circuit?
   (b). What is in the transmitter circuit?
   (c). What is in the receiver circuit?

INSTALLERS AND INSPECTORS' SCHOOL—SECOND-GRADE EXAMINATION.

1. Explain the polarized bell and its operation.
2. Explain the hand generator and its operation.
3. Explain the induction coil and its operation.
4. Explain the transmitter and its operation.
5. Explain the receiver and its operation.
6. Explain the condenser, its properties, and why it is placed on the bell circuit.
7 (a). Draw a diagram of the desk-stand circuit.
   (b). Draw a diagram of the wall-set circuit (No. 85 set).
8. Draw a diagram of the hotel-set circuit (No. 293–R).
9 (a). What does a side tone indicate? (D. S. Ckt.).
   (b). What does no side tone indicate? (D. S. Ckt.).

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10. What is the resistance of the bell winding?
What is the resistance of the receiver winding?
What is the resistance of the primary coil?
What is the resistance of the secondary coil?
What is the resistance of the transmitter?

NEW YORK TELEPHONE CO.—PLANT DEPARTMENT.

EXAMINATION QUESTIONS IN CONNECTION WITH THE SPLICERS' HELPERS' SCHOOL.

1 (a). What is a feeder cable?
(b). What is a block cable?
(c). What is a house cable?
(d). What is a trunk cable?
2. What are the two styles of terminal commonly used, and what is the rule governing their use?
3. How may a pair be distinguished in a cable?
4. What are the names by which the sides of a pair are distinguished, and give particulars as to how they are terminated?
5. What are the troubles which may result from faulty cable construction?
6. In addition to the above troubles, what are the troubles which may result from faulty splicing work?
7. What is a spare pair?
8. What is a straight splice?
9. What is a cross-connecting box?
10. What is the construction notification book in a central office used for?
11. What is a bridged pair?
12. What is indicated by the letter "B" placed before the conductor number on a cleat or form strip in a house cable?
13. What is the main frame in a central office?
14. What are the two sides of the main frame and how do you distinguish between them?
15. Why is a heat coil used and what means of protection is it?
16. How should a heat coil be placed in position?

The following is a list of the instruction books used in the plant department of a telephone company:

INSTRUCTION BOOKS—PLANT DEPARTMENT.

1. General instructions.
2. Subway cable work.
3. Block cable work.
4. House cable work.
5. Splicing.
6. Wiring.
7. Instructions for installers and inspectors.
8. Testing.
9. Trouble.
10. Booth installations and signs.
11. Wiring plans, P. B. X. and station circuit wiring.
12. Instructions to inspectors.
13. Cable testing.
14. Instructions to wire chiefs' forces.

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15. Central office tests.
16. Central office inspections.
17. Routines.
18. Reports.
19. Records.
20. Trouble and trouble records.
21. Cable work and transfers.
22. Special circuits.
23. Standard stamps and abbreviations.
24. Emergencies.
25. Power plant, central office light and power circuit.
26. Central office buildings, furniture, and fixtures.
27. Engineering bulletins.
28. Tentative instructions for placing aerial cables.

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TYPICAL SERVICE INSTRUCTION IN OTHER INDUSTRIES.

I. GENERAL ELECTRIC CO., SCHENECTADY, N. Y.

APPRENTICE COURSES.

Introduction.—The apprentice courses of the General Electric Co., of Schenectady, N. Y., were organized in 1901, with a view to stimulating in the minds of boys a desire to become thorough mechanics by systematic training of the mind, the hand, the wrist, and the eye in the trades of machinist, patternmaker, molder, blacksmith, and draftsman. The apprentice courses consisted at first merely of systematized training on the machine tools, but classroom work was soon added to complete the course of instruction. During the first 13 years in the history of the course the work was satisfactorily completed by 774 boys, of whom 493 were machinists.

Admission.—Each applicant for admission to the apprentice course must have a definite idea of the trade he wishes to follow, and his request for admission must be based, not on a sudden impulse, nor on the mere desire to find employment, but on repeated talks with his parent or guardian which have helped him to discover the trade that has appealed most strongly to him.

Applicants must be between the ages of 16 and 18, be able to speak, read, and write English, be of good habits, and be well recommended. All applicants must have completed the eighth grade of the elementary school.

Applications.—Applications for admission to the apprenticeship courses of the General Electric Co., at Schnectady, N. Y., may be made by the boy in person, accompanied by his parent, or by letter to the superintendent of apprentices, giving full particulars of the applicant's age, training, and reasons for seeking admission to the course. An application will not be accepted from any boy unless he has made up his mind to apply himself diligently and thoughtfully in the shops and in the classrooms to the task of making himself a more useful man to his employer, and to the community in which he lives, nor unless he has decided for himself certain rules of conduct which will establish his reputation for honesty, sobriety, and self-control in the shops and in his home. The parent of each applicant

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must agree to cooperate with the superintendent of apprentices by carefully supervising the apprentice at home, by urging him to give a certain amount of time to his home work in mathematics and drawing, and by providing a consistent plan for the apprentice's recreation and pleasure. If the applicant resides in a town other than Schenectady, arrangements must be made to enable him to live with a relative or a guardian in Schenectady, who will be responsible for his welfare. At the completion of the four-year course of study, the apprentice receives a diploma and a bonus of $100, and is given employment as a journeyman in his trade.

Course for machinists.—In the selection of applicants for the machinists' course preference will be given to those boys who are just leaving school, because they have not yet lost their habits of discipline, obedience, and study, and have not yet forgotten what they were taught in school. In the training room, which is equipped with machine tools and benches, these boys receive thorough instruction from competent teachers in the methods of machine and bench work. After completing the required time in the training room, the apprentice is transferred to one of the large machine shops, where he obtains experience in bench work and assembling work under the supervision of the apprentice department, which cooperates with the shop foreman and the instructors. The course covers four years of 2,770 hours per year, and the rate of pay is gradually increased from 10 cents an hour during the first year to 16½ cents an hour during the fourth year.

Course for patternmakers.—Apprentices in the patternmakers' course spend two years under competent instructors in the training room for patternmakers, which is equipped with machines and benches for wood patternmaking. At the beginning of the third year the apprentice is transferred to the regular pattern department, and during this year is assigned for three months to the foundry, where he performs the same class of work as that required of the molder apprentices. This experience is needed in order that the patternmaker may become familiar with the molder's problems and thus better assist in securing good castings. The duration of the patternmakers' course and the rate of pay are the same as in the case of machinists.

Course for blacksmiths.—Applicants for admission to the course for blacksmiths are required to pass an examination in arithmetic up to and including common fractions. They spend four years of 2,770 hours per year in the blacksmith shop, where they obtain an intimate knowledge of metals, their characteristics and proper treatment in forging, welding, and tempering.

Classroom work.—Each apprentice spends about 3½ hours a week during working hours in the classroom. The subjects taught

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are those related to practical shopwork, including algebra, applied mechanics, blueprint reading, and mechanical drawing. In teaching the fundamentals of mathematics, problems are taken directly from shop practice to impress the apprentices with the practical use of the principles studied. All apprentices are required to do a certain amount of home work in the way of study and making finished drawings, with a view to inculcating the habit of reading and studying at home. Apprentices are paid the same rate of compensation while at school as in the shops. If an apprentice fails to pass his school examination or fails to complete the required number of drawings, this is recorded as lost time, and will bar him from advancing to the next year's work with its increase in compensation.

Course in mathematics.—The following course in mathematics is prescribed for machinists, patternmakers, and blacksmiths:

First year:
- First term—Factoring; greatest common measure; least common multiple; cancellation; fractions.
- Second term—Simplification; decimals; measurement of circles; circumferential speeds; pitch and lead; shop problems.
- Third term—Compound quantities; measurements (lines, arc; areas—rectangle, triangle, trapezoid, circle, sector, ellipse; volumes—solids having any of the above figures for base; angles); shop problems.
- Fourth term—Metric system; board measure; general review; and shop problems.

Second year:
- First term—Percentage; shop problems.
- Second term—Ratio and proportion; involution; evolution; square root and applications; pulleys; gears; and shop problems.
- Third term—Evolution; cube root; mensuration; triangles; trapeziums; polygons; shop problems.
- Fourth term—Mensuration; cone; pyramid; sphere; shop problems; review.

Third year:
- First term—Definitions; positive and negative numbers; algebraic expressions; fundamental processes.
- Second term—Fundamental processes; simple equations; special products.
- Third term—Factoring; greatest common divisor; least common multiple; fractions begun.
- Fourth term—Fractions completed; ratio; simultaneous equations.

Fourth year:
- First term—Graphs; powers; roots; radicals.
- Second term—Quadratics; exponents; logarithms.
- Third term—Rectilinear figures.
- Fourth term—Similar triangles and circles; practical problems.

Course for draftsmen.—Applicants desiring to enter the course for draftsmen are required to pass an examination in arithmetic, including mensuration, metric system, and square and cube root. The first year is spent in the drafting room on blueprint work and tracing. The next year is spent in the shops, nine months in obtaining practical experience on machine work and assembling and three

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months in the foundry. The last two years are spent in the drafting room. The course covers four years of 2,250 hours per year, and the rate of pay is increased gradually from 7½ cents an hour during the first half of the first year to 18½ cents an hour during the fourth year. During the first year the draftsmen receive the same classroom instruction in mathematics as the third-year machinists, and during the second year they receive the same classroom instruction in mathematics as the fourth-year machinists.

The following is the course of study in mathematics during the last two years of the course:

Plane geometry—three months.
Metrical relations and constructions; applications and review; practical problems.
Solid geometry—three months.
Lines and planes in space; polyhedrons; cylinder; cone; sphere; review.
Trigonometry—six months.
Functions of acute angles; tables; solution of right angles; goniometry; solution of oblique triangles.
Descriptive geometry—six months.
Fundamentals; straight lines and planes; problems in curved surfaces.
Mechanics—six months.
Composition and resolution of forces and velocities; concurrent forces; moments; motion; work power and energy; general laws of machines.
Strength of materials—six months.
Definitions and general properties of materials; moments for beams; investigation and design of beams; column or struts; shafts; elastic deformation; concrete; combined stresses; applications.

Classroom instruction in drafting.—The classroom instruction in drafting which is provided for draftsmen, machinists, patternmakers, and blacksmiths covers the following curriculum in four terms, each of which lasts six months:

First term:
Practice; drawing-room standards; heads and nuts; screw lines and threads; problems; conventional methods.
Second term:
Projections and development.
Third term:
Brush holder studs and connections; brush holder yokes and details; brush holder; commutator; bearing; standard; oil gage; and fittings.
Fourth term:
Assembly.

Course for molders.—Applicants for admission to the course for molders are required to pass an examination in arithmetic, including common fractions. They must be between the ages of 18 and 21 and must be strong enough physically to work in a foundry. They must also be able to speak, read, and write English. These apprentices work in the foundries and receive practical classroom instruction on foundry matters one period a week after 4 o'clock. This classroom instruction consists of special problems in arithmetic and of instruc-

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tion in drawing sufficient to enable the apprentice to work intelligently from a blueprint. The course covers four years of 2,500 hours a year, and the compensation of the apprentices is gradually increased from 14 cents an hour during the first year to the standard minimum wage of a journeyman during the fourth year.

COURSES FOR STUDENT ENGINEERS.

Introduction.—Since the capitalization and the personnel of electrical enterprises have more than doubled during each of the last two decades in the United States, there is no field which offers larger opportunities to young men possessing the necessary technical training and the qualities that make for success. For success in the service of an electrical manufacturing plant or a public-service corporation there is required, however, not only the fundamental knowledge of electrical laws which is obtained in college, but also such an acquaintance with the principles of the design, manufacture, testing, and installation of electrical machinery as can be obtained only at the plant of a large electrical manufacturing corporation.

Student engineers' course.—The student engineers' course of the General Electric Co., at Schenectady, N. Y., seeks, by furnishing this practical experience to technical-school graduates, to supply competent trained men to make commercial tests of its products, to train men for the service of the company, and to give opportunities for practical shopwork to college graduates. It is a postgraduate course for designers, manufacturers, salesmen, railway engineers, and research engineers. During the last decade 3,450 engineers pursued this postgraduate course in classes varying between 200 and 400 a year, according to industrial conditions.

Entrance requirements.—Applications for admission to the student engineers' course should be sent to the secretary of the students' committee of the General Electric Co., at Schenectady, N. Y., upon blanks provided for the purpose, with a full outline of the applicant's theoretical training, practical experience, and other special qualifications. The indorsements of college officers and of other engineers should accompany the application. Students are accepted throughout the year and are assigned dates for beginning their work after they have been accepted.

Testing department.—All student engineers spend one year in the testing department before being permitted to specialize in any other department. This testing work is carried on at Schenectady, Pittsfield, and Lynn in the following activities:

Schenectady:

Industrial control, train control, compensators, experimental flow meter, measure, speed and voltage regulators, railway motors, motors and generators, medium motors, large motors, steam turbines, and government work.

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Pittsfield:

Transformers, regulators, and small motors.

Lynn:

Arc lamps, C C transformers and rectifiers, switchboard transformers, motors, and steam turbines.

In addition to this regular testing work the students are also assigned to special work and for three months to night tests. They are given practice in experimental railway work, including locomotive and car testing and experimental equipment work; in the illuminating laboratory, including general illumination and the efficiency of lamps; in the standardizing laboratory on the calibration of meters, iron testing, and oscillograph work; in the consulting engineering laboratory for periods varying from one week to two months, in assembly work, in high frequency and high potential tests, in shop practice, and in mechanical drawing.

Electrical course.—During the first year the student engineer may elect either the electrical course or the electromechanical course. In the electrical course the students are afforded experience in assembling and testing all kinds of apparatus, together with control devices and auxiliaries at Schenectady and at Pittsfield. At least three months are spent at the latter place.

Electromechanical course.—The electromechanical course, which is given at Lynn, seeks to give the students an understanding of machine tools and processes and to develop their mechanical conception. Shop experience precedes work in the testing department and time is also spent in the winding, cost, and production departments, and in the drafting room. The student is given experience in adjusting and testing various types of indicating and recording instruments, in adjusting and testing arc lamps, in photometric and research work, in constant current apparatus for operating arc lamps in series, in the manufacture and testing of series mercury arc rectifiers, in work on transformers and switching apparatus, in the commercial and special testing of alternating and direct-current motors, and in building and testing steam turbines and large air compressors.

General engineering extension.—Upon the completion of one year's work in the testing department student engineers may take an extension course in general engineering or in commercial engineering, receiving payment on an hourly or a weekly basis. After the completion of this course the men are transferred to the plants of the company throughout the United States and are recommended to railway, lighting, and power companies who ask the General Electric Co. for trained men. The general engineering extension consists of a probationary period of two months, followed by three courses of three months each. The first three months after the probationary period are spent in the consulting engineering department.

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The remaining six months are spent in one or two of the following departments: Transformer department, alternating current designing department, direct current designing department, railway department, power and mining department, or another of the engineering departments at Schenectady. The course includes engineering, commercial and general lectures on Saturday mornings on factory costs, production, and organization.

Commercial extension course.—The commercial extension course, which is open to graduates of the one-year course in testing, is provided for student engineers who show adaptability for commercial work. The course requires from four to eight months and classes are formed whenever a demand for men arises in the commercial department.

Lectures and recreation.—Lectures on engineering and allied subjects are provided by the company for the student engineers. The Edison Club furnishes lectures, reading room, billiards, tennis, bowling, dancing, canoeing, and club entertainments. The Schenectady Boat Club, consisting of student engineers and young men in the employ of the General Electric Co., furnishes opportunities for boating, canoeing, tennis, club entertainments, regettas, camping parties, smokers, musicals, and dances. The General Electric Athletic Association furnishes opportunities for baseball, football, running, and tennis.

COURSES FOR OFFICE EMPLOYEES.

Introduction.—In addition to maintaining courses of instruction for shop apprentices and student engineers the General Electric Co., of Schenectady, N. Y., provides instruction in the evening, in cooperation with the board of education of Schenectady, for its office employees in the accounting, cost, credit, and collection departments. The purpose of the instruction, which is conducted along broad, practical lines, is to bring within the reach of the clerical employees adequate opportunities for development to enable them to meet effectively the exacting modern demands for efficient service.

Entrance requirements.—Office employees of the General Electric Co. who are 16 years of age or over are admitted to these courses without examination, with the exception that no student is admitted to the course in higher accountancy unless he has passed an examination in elementary bookkeeping following the requirements of the University of the State of New York for this subject. All students are required to pay a registration fee of $1, which is returned at the completion of the course to all students who attend 85 per cent of the sessions of the class and who pass the examinations at the end of the course. Students must also purchase their own textbooks, but the purchase price is refunded by the company to all who qualify for the return of their registration fee. The curriculum

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offers instruction in arithmetic, elementary bookkeeping, business English, typewriting, higher accountancy, and business economics.

Arithmetic.—The instruction in arithmetic is given in 20 periods of 45 minutes. Twenty minutes of each period is devoted to rapid calculation. Written tests are given every two weeks, and a rating of 85 per cent is required on the final examination at the completion of the course. Van Tuyl's Business Arithmetic is used as a textbook, and the following subjects are taught:

1. Equation of accounts.
   a. Equation of payments.
   b. Equation of accounts.
   c. Cash balance.
2. Percentage.
   a. Trade discount.
   b. Profit and loss.
   c. Marking goods.
   d. Commission and brokerage.
3. Interest.
   a. Accurate.
   b. Compound.
   c. Negotiable paper.
   d. Bank discount.
   e. Present worth and true discount.
   f. Partial payments.
4. Stocks.
5. Bonds.
6. Taxes.
7. Partnership.

Bookkeeping.—The instruction in bookkeeping is given in 20 periods of 45 minutes. One-half of each period is devoted to individual work. Tests are given after the study of each principle, and 85 per cent is required on the final examination at the completion of the course. The textbook used is the elementary set published by the H. M. Rowe Co., which contains the complementary work as well as the regular work. The following subjects are taught:

1. Definitions of bookkeeping and business terms.
2. Account books and their uses.
   a. Purchase book.
   b. Sales book.
   c. Cashbook.
   d. Journal.
   e. Ledger.
3. Classification of debits and credits.
4. Personal accounts.
5. Ownership accounts.
   a. Capital and proprietor's personal accounts.
6. Notes receivable and notes payable accounts.
7. Cash accounts.
8. Merchandise accounts.
   a. Purchase accounts.
   b. Sales accounts.
   c. Inventory account.
9. Property investment account.
10. Operating accounts.
11. Journalizing.
12. Posting and checking.
13. Trial balances.

Business English.—The instruction in business English is given by means of written papers and individual work in 24 periods of 45 minutes. There are tests in the correction of common grammatical errors, a mid-course examination, and a final examination on which 85 per cent is required. Davis & Lingham's Business English and

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Correspondence is used as a textbook, and the following subjects are taught:

1. The aim of business English.
2. Review of grammatical principles.
    a. Parts of speech.
    b. Sentences.
    c. Verbs.
3. Punctuation.
4. Spelling and uses of words.
5. Fundamental principles of composition.
    a. Unity.
    b. Coherence.
    c. Emphasis.
        (a) In sentence structure.
        (b) In paragraph structure.
6. Form of a letter.
    a. Paper.
    b. Parts of a letter.
7. Letter of application.
8. Buying letter.
9. Selling letter.
10. Letters of introduction and recommendation.
11. Collections.
12. Advertisement.
13. Reports and summaries.

Typewriting.—The instruction in typewriting is given in 40 periods of 45 minutes, with a portion of the time devoted to individual work. In addition to monthly tests there is a final examination at the end of the course on which 85 per cent is required. Fritz Eldrige's Typewriting Manual, published by the American Book Co., is used as a textbook, and the following subjects are taught:

1. Machine.
    a. Mechanism.
    b. Care.
2. Operation.
    a. Keyboard drill.
        (a) Four-finger method.
        (b) Three rows of keys learned.
    b. Review of keyboard.
3. Word drill.
    a. Practice in going from one bank of keys to another.
4. Capitals and paragraphing.
    a. Use of tabulator key.
    b. Rules for spacing after punctuation.
5. Letters and drills.
    a. Salutations and complimentary closings.
    b. Words and phrases.
6. Figure drills.
7. Letters and drills.
    a. Including characters.
8. General information.
    a. Punctuation rules.
    b. Capital letters.
    c. Division of words.
    d. Figures (when and how used).
    e. How to make corrections.
    f. Instructions in erasing.
    g. Signs not on keyboard.
    h. Sizes of commercial envelopes.
    i. Sizes of typewriting paper.
    j. Hints regarding stencils.
    k. Proof-reading signs.
    l. Forms of address.
    m. Abbreviations.
    n. Double titles.
    o. Stenographer's initials.
    p. Inclosures.
    q. Bottom margins.
    r. Addressing envelopes.
    s. Short letters.
    t. Heading second sheets.

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Higher accountancy.—The course in higher accountancy will furnish instruction in the following subjects:

1. Review of the principles of accounting.
   a. Value of chief books of account.
      (a) Closing of these books.
      (b) Detection of errors.
   b. Trading statement.
      (a) Gross trading profit.
   c. Profit-and-loss statement.
      (a) Classification of expenses.
      (b) Net profit.
      (c) Dividend.
2. Statement of resources and liabilities.
   a. Current.
   b. Fixed.
   c. Contingent.
3. Manufacturing accounts.
   a. Plant.
   b. Materials.
   c. Labor.
   d. Factory expense.
4. Cost accounting.
   a. Direct charges.
      (a) Material.
      (b) Direct labor.
   b. Indirect charges.
      (a) Factory.
      (b) Overhead expense.
5. Distribution of indirect expenses.
6. Departmental manufacturing accounts.

Business economics.—The course in business economics comprises the general principles of corporation finance and organization, and special studies in the organization, routine, sales, and accounting classifications of the General Electric Co.

II. THE LAKESIDE PRESS, CHICAGO, ILL.

Vocational guidance.—Most boys when they reach the age of 14 years are forced by circumstances to become wage earners. They have had no special preparation in the schools for an industrial career, and generally receive no guidance while attempting to adjust themselves from the 75 per cent standard of efficiency in the schools to the 100 per cent business standard of efficiency. During the first two years of their business life most boys are employed in running errands or in performing other odd jobs which do not give them any training of value to them, and as a natural result the average boy considers that job best which pays the highest wages for the least work.

The printing trade.—In selecting their first jobs boys should endeavor to avoid the blind alley of incidental employment and seek work which is interesting to them and which offers them special training and opportunities for advancement. Printing, which ranks sixth among the important occupations of the world, has always attracted the better class of boys. The wages paid are high, and the work continues fairly constant throughout the year. The energetic and skilled workman has many opportunities to advance himself to foreman, superintendent, or manager, and the demand for skilled

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workmen is so great that employers are giving much thought to the training of apprentices.

School for apprentices.—Under modern factory conditions the workmen are either too busy or have no inclination to be bothered by apprentices. Apprentices in a factory accordingly receive only such training as they can pick up by imitating the workmen beside whom they work. To furnish to its apprentices better and more systematic training, the Lakeside Press, of Chicago, established a school for apprentices in 1908, which furnishes the following advantages to boys: They learn the trade after they have entered the business; they receive wages while learning; their work is real and not theoretical; and they are under the supervision of an instructor during their shop-work. A special room is provided for the school, with one part equipped as a schoolroom and the other as a model composing room. The boys are in charge of instructors who devote their entire time to the school. The supervisor of the school teaches the academic work, and exercises general oversight of the boys in the factory; an instructor in design has charge of the work in design; and an instructor in printing has charge of the trade instruction.

Admission requirements.—Applicants for admission to the Lakeside Press School for Apprentices must be grammar-school graduates, between 14 and 15 years of age. Their school record must show good standing, and a physical examination may be required. Good moral character and a desire to learn the printing trade are essential, and the boy's parents must promise to cooperate with the school in looking after his welfare. Application for admission to the school should be made by letter. The supervisor of the school interviews the applicant and visits his parents, and if the boy appears to be satisfactory, he is given a fair trial. If both the boy and the supervisor of the school are satisfied by this trial, an agreement is entered into between the Lakeside Press, the boy, and his parents for a two-year preapprenticeship course.

Preapprenticeship term.—By the terms of the preapprenticeship agreement the firm agrees to teach the boy for two years; the boy agrees, if his services are satisfactory to his employer, to contract for five additional years as a full apprentice in the department which the firm deems best suited to his ability; and the parents agree that the boy will remain until he has learned the trade. During the preapprenticeship period the boys spend half time in the school and half time in the factory, spending three and one-half hours daily in the school and four and one-half hours daily in the shop. The boys are paid $2.40 per week the first year and $3 per week the second year, which is at the rate of 10 and 12 cents per hour, respectively, for the time actually spent in the factory by the boys during these

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two years. Two weeks' vacation, with pay in advance, is allowed each boy whose average standing for the year is 95 per cent or above.

Course of study.—Arithmetic is reviewed from the factory side by means of an applied arithmetic prepared for this review work. Elementary bookkeeping is taught by means of lessons especially arranged for the printing office. The elements of algebra and geometry are taught, with problems applied to the trade. Every apprentice is required to read and review at least six books of standard literature each year. The lessons in design are applied in the written as well as printed work in all the different subjects. Every exercise is a lesson in English. The rules laid down for good book work are followed in all written work, and proof marks are used in correcting all exercises. No poor work is accepted. The boys are also given in the schoolroom graded lessons in setting type, reading proof, locking up small forms, and taking proofs. The standard is high and there is a carefully estimated time on each job. The habits of work are regarded probably as more important than the work itself, because it is believed that one who has become efficient in one thing readily learns to become efficient in other things. When the student has completed his exercises he is given commercial work. Real work has greater educational value in developing a skilled workman than work intended for the waste basket.

Factory work.—The boys work in relays in the factory. They are given work in the different departments in order that they may learn something of each of the various branches of the trade, and ultimately select the particular department they will enter and the line of work they will follow as a trade. The hours spent in the shop accustom the apprentices to factory work—to be on time, to be systematic, and to receive and carry out instructions promptly. These principles are quickly instilled in their minds when they enter a large workroom and work side by side with men. During the preapprenticeship period a well-rounded course rather than specialization is the aim, in order to insure a good foundation for advanced work during the apprenticeship.

Apprenticeship term.—Upon completing the preapprenticeship course the boys at the age of 16 enter the factory as regular apprentices to learn some one of the trades of the printing business. The academic training begun during the preapprenticeship course is continued during the apprenticeship; the boys attend school for several hours each week and receive regular pay. New subjects are added to the course of instruction. Much attention is given to designing, layouts for jobs are made and are carefully criticized after being carried out in type. Mechanics, industrial history, English, hygiene, and economics are taught. In the shops apprentices are given an opportunity to specialize in any one of the many branches of the

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printing business—hand composition, linotype operating, monotype operating, bookbinding, feeding, press work, photo-engraving, lithograph work, photogravure, or offset work. Instruction in applied design, lettering, and the theory of color is given in the school, and in the shop the boys are given commercial work as far as possible, to make them realize that only good work will be accepted, and that to become efficient workmen, they must center their attention upon the work in hand.

Reports.—The supervisor cooperates with the parents of the boys by means of monthly reports and occasional visits. A descriptive report, a report of standings, and a graph of the average monthly standings are sent to the parents every month. All standings are based upon the quality and the quantity of work done. Time limits are set on each job or assigned task, according to past experience. If the jobs are performed within the time limit set and the quality of the work is up to the standard of the department, a credit of 100 is given, which means work satisfactory both as to quality and quantity. Since the quality must be up to the standard, the standings become largely a time basis record. Above 100 indicates excellent work, standard quality in less than the time limit set; 95 is the bonus standard; 90 indicates fair work, and 85 or less failure. Standings of less than 100 indicate that more than the time limit was taken to perform the job. In determining the averages, trade work is given a weight of 5, academic work a weight of 3, and deportment a weight of 2.

III. METROPOLITAN LIFE INSURANCE CO.

Introduction.—The service instruction of the Metropolitan Life Insurance Co. consists of a correspondence course of 10 lessons in the principles of life insurance for its agents and home office employees, the distribution among its employees of the large number of leaflets on health and hygiene published from time to time for the company's industrial policy-holders, classroom instruction in stenography for beginners and in mathematics for applicants for actuarial positions, systematic instruction in gymnastics and recreational activities for men and for women, and instruction in singing.

Correspondence course.—Each newly appointed agent is carefully instructed in the daily routine of his duties by his superintendent, who gives him individual instruction in the field. A biweekly publication of the company, called the Intelligence, seeks to impart instruction in salesmanship and to cultivate a company spirit in the agency force. On the completion of his sixth month of service the agent is enrolled in the correspondence course in the principles of life insurance.

This course consists of 10 lessons, which cover the subjects of mortality, interest, construction of a premium, and an analysis of the

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several types of policies and plans of insurance. Each lesson, prepared in the form of a booklet of about 15 pages, has been written in a clear, simple, nontechnical style. The lessons are sent to the agents one at a time. A special blank is provided, on which each agent is required to send to the home office his answers to the questions printed at the end of each lesson. He is also encouraged to ask questions on the subject matter of the lesson. The answers are rated, and the corrected and annotated answer sheets are returned to the agents. A record of the work done by each agent is kept at the home office, and a diploma is issued on the satisfactory completion of the entire course. By holding conferences on the subject matter of each lesson, the superintendents in the field frequently supply that personal instruction the absence of which is the chief defect of correspondence instruction.

This correspondence course of instruction has greatly increased the efficiency of the agency force by increasing their knowledge of the underlying principles of life insurance, and by enabling them to answer more satisfactorily specific inquiries of the prospects. It has also increased the efficiency of the agency force by increasing the persistence of the graduate agent in the life insurance field. Of 10,860 agents in the employ of the Metropolitan during the calendar year 1913, more than 50 per cent were separated from the service. Of the 1915 agents who graduated from the correspondence course prior to January 1, 1914, more than 85 per cent are still in the employ of the company.

Distribution of literature.—With a view to reducing the mortality among its 8,000,000 industrial policyholders, the Metropolitan Life Insurance Co. publishes and distributes each year a vast quantity of literature relating to subjects of health and hygiene. The systematic distribution of this health literature among its employees gives them a valuable course of instruction in such subjects as the health of the worker, teeth, tonsils and adenoids, scarlet fever, smallpox, typhoid fever, consumption cures, sleeping in the open air, hygienic drinking cups, clean milk, flies, etc.

Classroom instruction.—The Metropolitan Life Insurance Co. offers two courses of systematic classroom instruction to such of its employees as may seek higher positions. For applicants for actuarial positions it maintains two classes in mathematics, each of which had about 20 students in 1913. The elementary class covered Hall and Knight's College Algebra from factoring to progressions (chs. 10 to 33), and the advanced class covered almost the whole of Hall and Knight's Higher Algebra. For such of its clerks as may seek advancement to a stenographic position, a class in stenography is maintained, in which there were 204 students in 1913. No specific course of study is provided for this class. It is essentially a speed

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class, to enable candidates for stenographic positions in the company's service to keep in practice, improve their speed, and acquire familiarity with the phrases used in the company's correspondence.

Recreational instruction.—To stimulate interest in recreational activities which are so much needed by men and women who are engaged in the sedentary pursuits of office work, the Metropolitan has organized an athletic association, a glee club, and a choral society. The athletic association, which has a membership of 750, has supervision over the gymnasium, organizes tennis teams, baseball teams, football teams, basketball teams, and handball teams, makes arrangements for interdepartmental games and tournaments, and holds an annual field day at which there is usually an attendance of about 5,000 persons. At the 1913 field day over 200 participated in 12 events for men and 2 for women. Three prizes were awarded for each event. An instructor is employed by the company to give systematic instruction in physical exercise in the gymnasium to the men and the women of the clerical force on alternate afternoons. On the same floor with the gymnasium in a large auditorium, with a piano, which is used by the girls for dancing during the luncheon period every day and which is also used for concert purposes by the Men's Glee Club and the Women's Choral Society.

IV. D. E. SICHER & CO., NEW YORK.

Introduction.—D. E. Sicher & Co., of New York, manufacturers of muslin underwear, give to their employees systematic instruction in hygiene and safety matters, cooperative day-time factory classes, illustrated noon-hour lectures and recitals, and Saturday afternoon instruction in dessmaking.

Hygiene instruction.—Instruction in matters of hygiene is given to the employees in three ways. A service director is employed who is a trained nurse and who, being given the freedom of the factory, comes daily and continuously into contact with the employees and has the opportunity to give personal instruction whenever necessary. Printed directions are posted throughout the factory to warn the employees of the importance of following the instructions given in matters of hygiene. The following is an example of these:

> COOPERATION MEANS SUCCESS.
>
> CONSIDER YOUR OWN HEALTH AND THE HEALTH OF OTHERS.
>
> THESE TOILETS ARE CLEANED FOR YOU.
>
> PLEASE KEEP THEM CLEAN. THROW NOTHING ON THE FLOOR.
>
> D. E. SICHER & CO.

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Hygiene instruction is also given to the employees by the house organ, "Threads and Thoughts," which is published monthly and which always contains one or two articles on this subject, such as "Care of the hair," "Massage for the scalp," "Care of the skin," "Care of complexion," etc.

Safety instruction.—Safety instruction is given to the employees in four ways. Fire drills are held monthly and a careful permanent record is kept of each drill, giving the date, the time ordered, seconds required to empty the building, minutes required to return to work, and general success of the drill. The employers, at irregular intervals, make addresses on safety subjects during the noon hour. Safety instructions are posted throughout the factory. Finally, individual care and caution in the operation of sewing machines is insisted upon by the firm's machine instructor.

Day-time factory classes.—This firm has also established day-time factory classes in an effort to eliminate illiteracy among the foreign-born employees. The following course of study is given to these day-time factory classes:

I. English language:
  1. Reading.
  2. Spelling.
  3. Writing.
  4. Geography.
  5. Methods of communication—
    a. Correspondence—
      (a) Business letters.
      (b) Social letters.
      (c) Post-office regulations.
    b. Telephoning.
    c. Telegraphy.

II. Hygiene:
  1. Personal cleanliness.
  2. Physical culture (gymnastics).
  3. Food (nutritive value).
  4. First aid to injured.

III. Civics:
  1. Systems of government.
    a. Merits of democratic government.
    b. Patriotism.
    c. Citizenship.
  2. History.
    a. Origin of legal holidays.
    b. Lives of statesmen.

IV. Mathematics:
  1. Four fundamental operations in arithmetic.
  2. Tables of weights and measures.
  3. Money (bills and currency).
  4. Work reports.
  5. Personal-expense accounts.
  6. Bank accounts.

V. Practical application of language:
  Evolution of an undergarment.
    a. Growth of cotton plant.
    b. Manufacture.
      (a) Spinning operation.
      (b) Bleaching operation.
    c. Shipping.

VI. General information:
  Alphabet as a guide to common things.
    a. Advertisements.
    b. Dictionary.
    c. Directory.

Noon-hour lectures.—In addition to the instruction given in the day-time factory classes, which is thoroughly practical and closely correlated to the life and the work of the employees, illustrated lec-

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tures of an educational and recreative character are furnished to the employees during the noon hour. During the past year there have been lectures on such subjects as the "Panama Canal," "California," "Wonders of New York," "Meaning of the Dance," and fire prevention. There have also been vocal music, violin, and graphophone recitals.

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SERVICE INSTRUCTION OF THE CITY OF NEW YORK.

POLICE SERVICE INSTRUCTION.

1. *Introduction.*—Until a comparatively recent date police recruits in New York received no formal instruction other than catechetical instruction in the rules and regulations of the department in the police school for recruits.[1]

Commissioner Arthur Woods in 1914 reorganized the school for recruits as the New York Police Training School and placed in charge of this school Inspector Cornelius Cahalane, who is regarded as one of the ablest police instructors in this country. The inspector has planned and developed the curriculum of the training school with a view to training and fitting the 11,000 members of the uniformed force in the performance of their duties. Every rank in the department must attend the school at some time during the year for the purpose of receiving instruction in the duties of that rank.

2. *Course for probationers—*

The probationers are assigned to the training school for three months, during which time they are instructed in the ordinances of the city, rules and regulations of the department, laws of the State, and usages and customs of the department. They are taught in the school of the soldier to drill, wrestle, box, scale ladders, and are given exercises for the care of the feet. Each probationer is taught the care and use of firearms, an hour and a half each week being devoted to the subject. Those who can not swim are given this instruction in the swimming pool and, when the weather permits, in the New York Harbor. Every man is taught to ride a bicycle and a motorcycle. They are taught the distinctive characteristics of the various makes of motor vehicles so that they may be able to identify them.

To test their efficiency and their adaptability to police work they are given oral and written examinations every two weeks on subjects which have been under discussion.

After the probationers leave the school and before they end their probation they are required to report to the training school one day each week, where their instruction is continued.

[1] Police administration, p. 106.

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3. *Practical instruction.*—While attending the New York police training school recruits receive the following practical instruction:

(*a*) At night they are assigned to a busy precinct and are required to accompany the patrolman assigned to house duty on all cases requiring police attention.

(*b*) On each Saturday and Sunday night they are assigned to patrol duty with a superior officer, who instructs them in the manner of performing patrol and the customs and usages of a patrolman.

(*c*) Several times during the course they are assigned in pairs on busy streets for the purpose of observation; they are visited by an instructor to whom they report violations of law observed by them, conditions requiring police attention, and places to be investigated with reference to their licenses.

(*d*) Lectures on first aid to the injured are given by police surgeons.

(*e*) Lectures and practical demonstrations on the importance of preserving finger impressions and on descriptive portrait identifications are given by officers of the detective bureau.

(*f*) They are sent out on the street to obtain cases for presentation at moot courts and are also assigned several times during their course to visit the day and the night courts to observe the manner of arraigning prisoners and presenting evidence.

(*g*) Each morning they attend the line-up of arrested criminals at headquarters and the lectures by detectives specializing in particular crimes.

4. *Physical instruction.*—Each recruit in the New York police training school devotes one and one-half hours each day to physical instruction, which includes the following:

(*a*) The setting-up exercises and the school of the soldier of the United States Army.

(*b*) The most approved methods of handling prisoners humanely and breaking holds of prisoners by means of the American and the Japanese methods of wrestling.

(*c*) Manner of scaling fire-escape ladders from sidewalk and of carrying unconscious or dead persons up and down ladders.

(*d*) Each recruit is given one hour of instruction each week in swimming and in rescuing drowning persons.

(*e*) Each recruit is instructed in the care and use of revolvers at a rifle range in police headquarters and is given during his course 20 rounds of five shots at a target, with 4-inch bull's-eye at 15 yards' distance.

5. *Mental subjects.*—The curriculum of the New York training school consists of the following subjects, which have been arranged

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in the order of their importance and the amount of time devoted to each:

a. Report making.
b. Traffic and animals.
c. Arrests.
d. Sanitary code and nuisances.
e. Burglary.
f. Crime classification.
g. Robbery and larceny.
h. Homicide.
i. Public morals.
j. Observation.
k. Fires and accidents.
l. Felonies and misdemeanors.
m. Children.
n. Patrol.
o. Disorderly conduct.
p. Assault and weapons.
q. Court procedure.
r. General ordinances.
s. Malicious mischief.
t. Election law.
u. Deportment.
v. Sabbath law.

6. *Courses for officers.*

Sergeants and lieutenants on the list for promotion are brought to the training school, where they remain for two weeks to receive practical instruction in the duties of the rank to which they aspire.

Once each year every sergeant and lieutenant in the department is relieved from all other duty and brought to the training school, where he receives instruction in the laws and ordinances, rules and regulations, and customs and usages of the department, so that police work throughout the city may be kept uniform.

7. *Other courses.*—The training school also offers special courses of instruction to patrolmen who wish to qualify for assignment to the traffic division, to those who wish to become motor cycle men, to detectives, to those who wish to receive instruction in revolver shooting or to qualify as marksmen, and to those who want physical training, instruction in the humane handling of prisoners, the most efficient methods of self defense or the principles of first aid to the injured.

The director of the training school also edits the monthly Police Bulletin, which is distributed to each member of the force and which seeks to give instruction on subjects of timely interest in the field of police administration, and Inspector Cahalane has also organized a course of study for the large number of patrolmen who compete every fourth year in the competitive civil service examinations for promotion to the rank of sergeant. This instruction is given to the patrolmen throughout the year during their time off in station houses throughout the city and covers systematically and thoroughly the four subjects of the civil service examination—the laws and ordinances of the city, the rules and regulations of the department, problems of police administration and the writing of a report on an assigned police subject.

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SERVICE INSTRUCTION OF FIRE DEPARTMENT.

1. *Introduction.*—Service instruction is given to members of the uniformed force of the New York fire department by the fire college. This college was established by General Orders No. 72, dated December 28, 1910. The purpose of this college is to disseminate knowledge of fire fighting, to establish and maintain the highest professional standards, and to afford men starting in the profession of fire fighting the advantage of the experience of men who have devoted their lives to this profession.

The fire college is administered subject to the control of the fire commissioner by the fire college board, of which the chief of department is president. At the conclusion of each course of instruction, the fire college board holds examinations and reports to the commissioner the names of those who have successfully completed the course to the satisfaction of the board. The board also makes to the commissioner from time to time recommendations for increasing the efficiency of the department and of the college.

The New York fire college consists of the four following schools: (1) Officers' school; (2) engineers' school; (3) probationary firemen's school; (4) company school.

The fire college maintains courses in the following subjects: (1) General fire fighting; (2) use of apparatus and tools; (3) engines and boilers; (4) use of high-pressure systems; (5) marine fires; (6) care of horses; (7) care of hose; (8) sapping and mining; (9) high tension electric currents; (10) combustibles and explosives; (11) gasoline motor engineering; (12) fire-alarm telegraph (including auxiliary systems); (13) auxiliary fire appliances; (14) first aid to injured; (15) discipline and administration.

2. *Officers' school.*—All officers of the department, except members of the fire college, and all engineers and firemen who are eligible for promotion to the rank of assistant foremen, shall be required to attend the officers' school under such rules and regulations as may from time to time be established by the board.

In so far as practicable no officers, or engineers, or firemen will be promoted unless they have sucessfully concluded this course of instruction to the satisfaction of the board.

Instruction in this school will be given by section. Sections will consist of 25 members, and will be announced from time to time in special orders of the department. Sections will be required to attend three times a week from 10 a. m. to 1 p. m. for a period of six weeks. Two sections will be under instruction at the same time on alternate days. On sections completing the course, new sections will be formed.

The subjects taught in the officers' school are highly technical. The courses of instruction deal principally with the strategy or

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deployment of apparatus at fires; the construction of buildings, shafts, and stairways; conditions encountered at fires, such as back drafts and explosions caused by the storage of heat; chemistry in its relation to fires; cotton smoke, wood smoke, jute, acids, etc.; the effects of imperfect combustion, and the ventilation of buildings.

3. *Engineers' school.*—All engineers will be required to attend this school. Firemen of the first and second grades upon their own application, approved by the board, will be granted permission to attend this school. In so far as practicable, no fireman will be promoted to the grade of engineer unless he has successfully completed this course to the satisfaction of the board.

The course of instruction in this school will be limited to an extended course in engines and boilers and gasoline-motor engineering, including the technical construction, care, and operation of steam and motor engines.

4. *Probationary firemen's school.*—All probationary firemen will be required to attend this school for a period of at least 30 days upon their appointment as probationary firemen. The instruction in this school shall be limited to practical instruction in the use of tools, scaling ladders and other life-saving appliances, and elementary instruction in first aid to the injured.

No probationary fireman will be appointed who has not completed this course to the satisfaction of the board.

5. *Company school.*—All companies will be required to attend this school, with their entire complement of officers and men, at such time and place as the board may from time to time direct. The course of instruction in this school will include use of apparatus and tools, and for engine companies will also include engines and boilers.

The instruction in this school consists of the performance, under direction, guidance, and criticism of evolutions covering the actual work performed at fires.

At the end of the instruction each company is required to perform the following 20 evolutions, and a record is kept of the time required for each evolution:

EVOLUTIONS USED IN COMPANY SCHOOL.

No. 1. Hoist line to roof outside of building, make line fast under cornice and on roof with approved knots.

No. 2. Remove burst length from line between fourth floor and roof and between fourth floor and street; replace with new lengths.

No. 3. Stretch two 3-inch lines from high-pressure hydrant and connect to standpipe; fire on sixth floor.

No. 4. Stretch 3-inch line from high-pressure hydrant, connect to standpipe floor valve inside of building; outside connection is out of order.

No. 5. Stretch three lines and make connections to turret pipe on hose wagon and operate same with proper size nozzle.

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No. 6. Stretch two lines, connect to rail pipes on hose wagon and operate with proper size nozzles.

No. 7. Stretch 3½-inch line from fireboat and connect to high-pressure hydrant.

No. 8. Stretch 3½-inch line from high-pressure hydrant and connect to water tower.

No. 9. Siamese two 2½-inch lines with one 3-inch lead line, put on Perfection pipe holder and proper size nozzle.

No. 10. Stretch in as many 2½-inch lines as possible to lead out with one 3½-inch line; put on Eureka pipe holder and proper size nozzle.

No. 11. Stretch 3½-inch line with three 2½-inch leading lines which can be controlled independently.

No. 12. Stretch 3-inch line, put on Paradox pipe holder, with proper size nozzle.

No. 13. Stretch 3-inch line and put on street pipe and stick, with proper size nozzle.

No. 14. Stretch line by ladder to third floor and place line in proper position to operate through window, and fasten with ladder strap.

No. 15. Stretch lines and make connections to cellar pipe, subcellar pipe, Baker pipe, Hart pipe, and distributors, and operate same.

No. 16. Make proper connection to take suction, and place fresh-water feed in service at fire.

No. 17. Hoist 35-foot ladder to roof, and lower same to yard.

No. 18. Raise and lower 35-foot ladder.

No. 19. Raise and operate aerial ladder.

No. 20. Discharge life gun, and throw line to roof.

On December 6, 1915, Engine Co. No. 20, consisting of 2 officers and 13 men, succeeded in performing these 20 evolutions in 17 minutes and 45 seconds, as follows:

Engine Co. 20, 2 officers and 13 men.

December 6, 1915.

Movement.	Time.	Movement.	Time.
No. 1	3.02	No. 12	.23
No. 2	.51	No. 13	.23
No. 3	1.01	No. 14	.38
No. 4	.48	No. 15	.26
No. 5	.40	No. 16	.33
No. 6	.30	No. 17	2.18
No. 7	.46	No. 18	.37
No. 8	.43	No. 19	1.04
No. 9	.28	No. 20	1.12
No. 10	.57		
No. 11	.25		17.45

SERVICE INSTRUCTION OF STREET CLEANING DEPARTMENT.

1. *Introduction.*—The formulation of service instruction for the employees of the street cleaning department presented many points of difficulty, because the work of these employees is largely manual in character; at has always been unstandardized, and many of the employees are illiterate. In the system of service instruction which was installed under the direction of Commissioner John T. Fetherston each of the manual operations was standardized and a leaflet of

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instructions on these standardized operations published for the information of the officers of the department. It was made the duty of the officers to impart this information to the men under their charge in accordance with the following order of the commissioner:

Employees must be properly trained to handle the tools and perform the work strictly in accordance with these instructions.

Officers will be held directly responsible for instructing the men daily at the section stations, stables and on the work, repeating the instructions until the definitions become second nature to the employees.

J. T. FETHERSTON, *Commissioner.*

May 1, 1915.

2. *Formulation of standard methods.*—The service instruction of the street cleaning department is based upon the standard methods for performing each routine operation which were formulated by a committee of the ablest and most experienced officers of the department appointed by the commissioner for that purpose. After having been revised and approved by the commissioner, these standard methods were published in a series of pamphlets and promulgated to the uniformed force. Pamphlets were prepared on the following subjects:

(1) Definition of terms for department employees.
(2) Orders on standard methods for hand sweeping.
(3) Orders on standard methods for hand flushing.
(4) Orders on standard methods for litter.
(5) Orders on standard methods for refuse collection.
(6) Orders on standard methods for rotary sweeping machines.
(7) Orders on standard methods for squeegees.
(8) Sick horses: How to prevent; how to tell; and what to do.
(9) Orders and instructions for contract snow removal.
(10) Regulations and instructions for the snow fighting force.
(11) Regulations and instructions governing keeping of time records.
(12) Standard orders for seizing incumbrances.
(13) Shop regulations, orders and instructions.

DETAILED INSTRUCTIONS FOR FLUSHING GANGS (TWO-MAN GANGS).

Take equipment to route assigned by officer at time specified. Look over route, and be sure that there is no litter or other heavy material on the street. Coil hose on carrier so that it will uncoil easily. Have nozzle end on top. Start to unreel hose at a point 100 feet before you get to first hydrant, if using two lengths, or 150 feet with three lengths, etc.

Nozzle man.—Take off nozzle end and hold it.

Hydrant man.—Drag carrier to hydrant, unreeling hose as you go. Put carrier on sidewalk, 10 feet from hydrant toward nozzle, out of the way of traffic. Take off hydrant cap. Pick up end of hose; throw as much of it into gutter or

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on sidewalk as possible. Couple hose to hydrant tightly. Always make sure a washer is in coupling to prevent leakage. Keep kinks out of hose. Put hydrant key on nut at top of hydrant and look to nozzle man for signal.

Nozzle man.—When hydrant man is connecting hose to hydrant, straighten out your end of hose. Put it in gutter, near curb, or on sidewalk. Pick up nozzle, take a position in the middle of street as far from hydrant as hose will reach. Open shut-off key on nozzle. Give signal to hydrant man to turn on water.

Hydrant man.—Turn hydrant key to right, the way hands of a clock move. Turn key slowly; if it sticks so you can not open it, leave hydrant alone and report it to foreman. (The hydrant valve stem can be easily broken if forced too much. Turning on water too suddenly may damage water system or throw nozzle man off his feet.) When water is turned on, stop any spraying from hydrant or hose couplings onto sidewalk. Put in a new washer or use spray shield over hydrant nozzle.

Go behind nozzle man and help him. When moving pick up hose in loop and take the weight off nozzle man; keep all the hose you can off the ground when moving forward.

Nozzle man.—Be sure to open a shut-off nozzle before water is turned on, so air can escape freely. Direct water toward pavement until stream has become steady. Start spraying on part of street farthest from hydrant and work toward hydrant by turning in your place, sprinkling the whole pavement as far as stream will reach, unless wet by rain or sprinkling cart. Do this without changing first position. (This spraying softens hardened refuse that sticks to pavement.) Use as little water as possible doing this.

Start on part first sprayed and flush. Follow line of spraying to let dust soak as long as possible. Direct stream against pavement to strike it about 6 feet away. Wash pavement from center of roadway to curb. Swing stream back and forth, raising it to follow mud wave at all times. Drive everything to gutter. Move so that you can wash it there. When finished with a section of street, move ahead and take another.

Always spray as far ahead as you can before flushing a new section. Work close to yourself when flushing. Then work as far as stream will do effective cleaning. Continue this way until limit of hose is reached. When nearly finished, signal hydrant man to go to hydrant. When finished, signal to shut off water.

Hydrant man.—Go to hydrant and shut off water when signaled. In shutting off hydrant, do not hurry. Quick shutting off of hydrant is dangerous and unnecessary. Disconnect hose and throw the end on ground to allow it to drain.

Look into hydrant nozzle and see if hydrant is draining properly. If hydrant is not shut off, something may be under valve. Open hydrant a few turns to wash material out. Then shut it again. Try this two or three times, and if you can not shut off water or the hydrant does not drain properly, notify foreman on his next round or when you go to section station.

Never use too much force; a strong man will twist the stem. If hydrant is draining properly, screw cap on nozzle. Help nozzle man coil hose. Drag carrier toward next hydrant on route. In winter always pump out hydrant if it does not drain quickly, and throw into it a handful of salt to prevent freezing.

Nozzle man.—When water is shut off, put nozzzle on ground where it will not be run over by traffic; go to the hydrant end of hose and help coil it on carrier. When reeled on carrier, then go to proper distance from next hydrant and repeat same operations over again.

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Always keep stream behind dust at all times and work it as fast as possible toward the gutter. Flush with grain of rough block pavement to clean out crevices. Flush with the grade of streets at all times, no matter how slight, unless otherwise ordered. If possible, flush with wind, so stream will not turn to spray before it strikes pavement. When using shut-off nozzle never let water run unless you are working with it. Shut off slowly. Use shut-off when moving ahead or when blocked by traffic.

When about finished with flushing, before going to section station, drain hose thoroughly by lifting it, beginning at the middle, and each man working toward each end of hose. Be sure all your equipment is on carriage before turning in at section station. Notify foreman if anything is missing or injured.

DONT'S.

1. Don't waste water.
2. Don't flush dirt into sewer catch basins.
3. Don't forget to keep stream behind dust at all times.
4. Don't forget to close hydrants after using them.
5. Don't use too much force to open hydrants.
6. Don't forget to flush with the grain of rough block pavement to clean out crevices.
7. Don't forget to stop spray from hydrant, hose coupling, or break in hose. Use spray shields.
8. Don't forget to open a shut-off nozzle before water is turned on.
9. Don't turn on water too suddenly.
10. Don't let too much hose drag when moving forward.
11. Don't forget to keep hose and carrier out of way of traffic.
12. Don't forget to shut off nozzle when blocked by traffic; when horses become frightened; when not working with it.
13. Don't forget to report damaged or poor hydrants and depressions in pavement promptly to foreman.
14. Don't forget to drain hose after finishing your work.
15. Don't forget to keep moving while using the water.

3. *Regulations.*—In addition to publishing pamphets containing the standard methods for performing each of the routine operations and requiring that the men be instructed by their officers in these standard methods in a school for recruits, in the section stations and on the work the following additional pamphlets have been promulgated to the force as a part of the service instruction system:

(1) Laws and ordinances relative to the cleaning of streets and sidewalks and the disposal of refuse [20 pp.].

(2) Duties and responsibilities of medical examiners in sickness and injuries [8 pp.].

(3) Duties and responsibilities of chief veterinarian and veterinarians [8 pp.].

(4) Code of discipline [11 pp.].

SERVICE INSTRUCTION FOR CLERICAL EMPLOYEES.

1. *New York University.*—The first attempt to furnish service instruction to the clerical municipal employees of New York was made by New York University in 1914. Extra-mural courses of collegiate

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rank were planned to meet the special needs of these employees and were given in the Municipal Building in which the city departments are located. These courses of instruction were given from 4 p. m. to 6 p. m., so that one-half of the instruction was given on the city's time from 4 p. m. to 5 p. m. and one-half on the employees' time from 5 p. m. to 6 p. m. A charge was made for tuition.

Courses of study were offered in stenography, typewriting, secretarial methods, civil government, accounting, engineering, mathematics, and other similar subjects.

During the year 1915 the number of the courses was increased, and all of the courses were given on the employees' time from 5 p. m. to 7 p. m.. Fees were again charged for tuition.

2. *College of City of New York.*—In 1916 Mayor John Purroy Mitchell appointed a committee of prominent merchants and manufacturers of this city to make a careful study of the training of men and women for the municipal service. President Mezes, of the College of the City of New York, and Dr. Henry Moskowitz, president of the New York Municipal Civil Service Commission, were made members of this committee, the province of which included not only the subjects of service instruction for those already in the municipal service, but also the training of men and women for admission to the municipal service.

This committee held a number of important conferences and, largely through the cooperation and vital interest of Dr. Moskowitz, succeeded in developing a comprehensive system of service instruction for municipal employees.

3. *Subcollegiate courses.*—For the large number of clerical and subclerical employees, who are seeking advancement, a number of courses of instruction are being given in the Municipal Building without charge for tuition and without expense of any kind to the employees. These courses are furthermore definitely correlated with the civil-service tests in which these employees must qualify for advancement in salary and for promotion in rank. The registration for this instruction, which is being given wholly on the employees' time after 5 p. m., has been so large that, although liberal provision had been made, it was found necessary to turn away more employees than could be accommodated.

For the lowest grade of clerks, courses in stenography and courses in typewriting were provided. For stenographers, courses in advanced English and speed classes in stenography were organized. Instruction in arithmetic was offered to the clerks, and courses of study in algebra and geometry were given to those seeking to enter the engineering profession.

4. *Clerical courses.*—In the typewriting class instruction was given to office boys and junior clerks in the touch system of typewriting.

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The curriculum was that usually found in an elementary class in typewriting, and the instruction was given by an efficient instructor of many years of experience in the public high schools. The elementary stenography class afforded an opportunity to clerks to obtain instruction in the principles of Isaac Pitman stenography.

The formulation of the courses of instruction in advanced stenography and in advanced English required more care and skill in planning. Both of these classes were intended primarily for the benefit of the stenographers in the city service. The advanced stenography class was divided into two sections, to one of which dictation was given at the rate of 50 words a minute, and to the other at the rate of 100 words a minute. Gradually the rate of speed of each section was increased by the instructor as the proficiency of the class seemed to warrant it. The plan of instruction was to give a dictation to one section, and permit the members of that section to study their notes while the instructor dictated to the second section. Next, the members of the first section read back their notes to the instructor, who placed the most important outlines on the blackboard, and explained them in detail to the class. The same method of instruction was followed with the second section.

5. *Instruction in English.*—Unusual skill was shown by the instructor in English, who was also an experienced public high-school teacher, in the formulation of his courses. On the first night of each class he requested the pupils to write a letter on what instruction they desired. This letter was corrected and graded by the instructor. Pupils receiving less than 7 points out of a maximum of 10 were placed in the elementary class, and the remainder were placed in the advanced class. Each class was given instruction in English composition by means of lectures, demonstrations, classroom themes, and an optional daily home-work theme. The subject matter of the themes and of the classroom recitations was correlated with the daily duties and the civil-service requirements of the employees, and in this way the instruction was made more concretely valuable.

6. *Collegiate courses.*—For those municipal employees desiring instruction of collegiate rank the entire curriculum of the College of the City of New York in its evening session was thrown open, and in addition special courses of instruction in municipal accounting and in engineering were planned and offered. Most of these courses were given after 7 p. m. in the college buildings. As this college is supported by public funds, all of its courses are free to those men who are able to meet its entrance requirements. Municipal employees who are unable to meet these requirements because of lack of secondary education, are admitted upon payment of a small fee.

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SERVICE INSTRUCTION IN PHYSICAL EDUCATION.

RECREATION FACILITIES.

1. *Introduction.*—A stenographer who combined the ability and efficiency of the twentieth-century business woman with the delicate charm of the nineteenth-century girl asked advice regarding courses of instruction in the evening—which would be of most value to her? She was told that after spending the day in the office engaged in mental activities under high nervous tension she was in greater need of physical activities possessing recreative features than of additional mental activities. It was pointed out to her that she had gained by experience a more comprehensive grasp of the subjects usually taught to stenographers than she could ever expect to obtain from theoretical evening courses in business English, secretarial duties, and the like.

The suggestion that she join a class in folk dancing, which would give her the physical exercise and recreation which would be of greater benefit to her, appealed to her sound business judgment. Inquiry of the colleges and universities of the city revealed the fact that none of them offered late afternoon or evening classes in folk dancing. Their classes in folk dancing, intended primarily for college students and public-school teachers, were held in the early afternoon.

2. *Dancing class for women.*—A suggestion that the stenographers be permitted to organize a dancing class in the evening in one of the large rooms of the city office building was met by the objection that such a use of the building might be considered improper. A further suggestion that a dance expert be employed to instruct the stenographers was discouraged on the ground that it would savor of commercialism. Eventually, however, it was possible to organize for the stenographers the educational and recreative activities which were considered desirable for their personal welfare and their business efficiency.

Through the cooperation of Prof. Thomas D. Wood, of the department of physical education of Columbia University, there was secured as instructor for the class a postgraduate student who consented to teach the class for the experience which it gave her. Through the cooperation of the secretary of the public recreation commission of the city, the use of one of the city's gymnasiums was secured for one hour a week in the evening.

The ability, tact, and winsome personality of the teacher, who was a Vassar graduate, with excellent training in folk dancing at Columbia, won the admiration of the stenographers. The complete freedom and relaxation which they enjoyed during this hour was a novel and most pleasurable sensation. The return of a healthy, ruddy

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color to cheeks which had been pale from confinement in the office, and the transformation of the careworn faces of the business women into fresh, radiant, buoyant girlish expressions, were rich compensation for the efforts expended in organizing this class.

3. *Class for men.*—As soon as this class had been fully established the young men employed in the building requested permission to join it. It was not deemed advisable to admit them because their admission would have necessitated the substitution by the young women of the formalities of the ball room for the freedom of the playground. Yet the request of the young men for recreative opportunities was a reasonable one which was not to be denied. Through the cooperation of Joseph Lee, supervisor of recreation of the department of parks, the services of a competent gymnasium teacher were obtained, who taught these young men a setting-up drill one hour a week in one of the city's gymnasia near the Municipal Building. Through the cooperation of the United States Volunteer Life Saving Corps, which is a department of the city government, the services of a swimming instructor were obtained, who taught these young men swimming and diving in the pool of one of the city's free baths during the remainder of this hour each week. It was found that swimming and light gymnastics were as popular among the men as folk dancing and social dancing were among the women. The light gymnastics and the folk dancing furnished the more valuable physical exercise in each case and the swimming and the social dancing furnished the larger opportunities for recreation and relaxation.

4. *Swimming classes.*—At the beginning of the summer the class in dancing was discontinued, owing to the inability of the instructor to continue this work. The members of the class formed a swimming class for the summer months, and this class was given the exclusive use of two of the city's swimming pools for one hour a week from 5 to 6 o'clock. Through the cooperation of the United States Volunteer Life Saving Corps, two competent women instructors were obtained, of whom one devoted her time to teaching those young women to swim who had not yet mastered this art, and the other spent her time in teaching advanced strokes to those who could swim. About 200 hundred young women enrolled for this work and received an opportunity to learn to swim, and facilities for refreshing relaxation after the day's work in the office in the hot months of June, July, and August, without any expense or outlay of any kind other than that involved in the purchase of the inexpensive one-piece bathing suit which all patrons of the city's pools are required to wear.

5. *Social dancing.*—During the second winter two classes in social dancing were organized, one for women and the other for men. Ex-

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pert instructors for each class were furnished by Joseph Lee, supervisor of recreation of the department of parks, and an invitation was extended to the employees of each of the 57 municipal departments to avail themselves of this instruction. The registration was even larger than during the first year, and by concentrating the instruction on social dancing and omitting the folk dancing and the calisthenics the instructors were able to make each student proficient in several dances before the end of the course in the spring.

At the beginning of the summer each of the dancing classes was again turned into a swimming class. More than 250 women and more than 200 men enrolled in these swimming classes. Furthermore, when more than 1,000 employees of the Metropolitan Life Insurance Co. asked permission to join these swimming classes, it was found necessary to organize separate classes for their benefit. Miss Maud Osborn, of the United States Volunteer Life Saving Corps, Miss Lillian Glassford, of the People's Bath, and Robert Blogg, of the United States Volunteer Life Saving Corps, instructed these classes during the second summer and succeeded in making every student who attended regularly fully able to take care of himself in the water.

6. *Swimming certificates.*—At the end of the summer, examinations were conducted to test the proficiency of the students. There was a simple test for the beginners and a more difficult test for the advanced students. Furthermore, since some swimmers lack confidence in swimming in their street clothes, and since an ability to do so without panic is a most valuable asset in an emergency, an opportunity was given the students to take these tests in their street clothes.

Certificates of proficiency of four grades, signed by me and by the president of the Borough of Manhattan of the city of New York, with whose cordial cooperation these courses of instruction were organized, were presented by the borough president personally to each employee who succeeded in qualifying in these tests.

7. *Gymnastic instruction.*—For the third winter the curriculum of the dancing classes for men and for women was greatly extended. In addition to offering to the employees instruction in social dancing, an opportunity was also afforded them to obtain instruction in the elementary principles of self-defense, in gymnastic work possessing practical value in emergencies, such as ladder climbing, vaulting, etc., and in simple calisthenics definitely correlated with daily activities.

The police commissioner cooperated by giving male and female instructors an opportunity to take the complete course in self-defense in the New York police training school, and the facilities

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of the swimming class for men were extended to the members of the uniformed forces of the police and the fire departments.

8. *Lectures.*—In addition to the instruction in dancing, swimming, gymnastics, calisthenics, and self-defense, there were organized several courses of lectures on city government, delivered by the commissioners of the 18 most important municipal departments, and on personal hygiene by eminent specialists in their respective fields and financial talks by experts in the world of finance. These lectures, which were generally delivered during the noon recess, were well attended and gave the employees much authoritative information of distinct practical value.

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DEPARTMENT OF THE INTERIOR
BUREAU OF EDUCATION

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ADULT ILLITERACY

By WINTHROP TALBOT

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ADULT ILLITERACY.

I. EXTENT OF ILLITERACY.

DEFINITIONS.

Illiterates are those who have not learned to write in any language. This is the definition on which American and most foreign statistics of illiteracy are based, because the percentage of those who can read but can not write is so small that it may be ignored. The test of writing one's name and ordinary words is simple, easily applied, definite, and practicable.

Literates are all who have had even the slightest amount of schooling. Many literates may be ignorant, but illiterates can not write even their own names, and seldom are able to read at all.

This study of illiteracy in the United States is restricted to the millions of adults who are absolutely illiterate; it makes no enumeration of other millions of near-illiterates who can only sign their names and decipher a few words with difficulty, nor does it take into account the many millions who can read and write, but seldom do.

Literacy is the first requisite for democracy. Unless means are provided for reaching the illiterate and the near-illiterate, every social problem must remain needlessly complex and slow of solution, because social and representative government rests upon an implied basis of universal ability to read and write.

ILLITERACY AND IGNORANCE.

Before analyzing illiteracy in the United States, it is important to distinguish clearly between illiteracy and ignorance, terms by no means the same, yet often used as though synonymous.

Illiteracy clearly is not ignorance. Many a man who makes an X for his signature knows more, is better equipped for citizenship, and is more fully prepared to battle with life than some who have been graduated from high school or college.

Schooling supplements but can never replace worldly wisdom and experience; nevertheless, the ability to read and write is fundamental, and lack of this equipment is such a handicap that illiteracy implies ignorance. Some ignorant persons may be illiterate, but most illiterates are ignorant.

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Intelligence is still another matter. Intelligence implies mental quality, capacity, and ability; untrained, its usefulness is restricted. In an illiterate, intelligence is stunted and imperfectly applied.

NUMBER OF ILLITERATES.

It is desirable to gain a graphic idea of the extent and implications, sources and type of illiteracy in the United States, and especially to realize the facts concerning the increase of white illiteracy at the present time.

Five and a half million people in the United States over 10 years of age are illiterate, or nearly eight out of every hundred.

This is over a million more than the combined total population of Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, and California (4,447,507); or of Maine, New Hampshire, Vermont, Massachusetts, and Rhode Island (5,438,945); or of South Carolina, Georgia, and Florida (4,877,140). It outnumbers Alabama and Tennessee (4,332,882); nearly equals Maryland, Virginia, and North Carolina (5,563,245); or Louisiana and Texas (5,552,920); and rivals the State of Illinois (5,638,591).

There were more illiterates in 1910 than comprised the entire population of the United States in 1800 (5,403,383). They would more than replace the inhabitants of all towns in the United States having a population numbering between 2,500 and 5,000 (1,172 towns; population, 4,105,656).

They would nearly fill the 372 cities having between 10,000 and 25,000 (5,609,208); would overflow the 179 cities between 25,000 and 100,000 (3,241,678); and would approach the entire combined metropolitan population of Philadelphia (1,549,008), St. Louis (687,029), Boston (670,585), Cleveland (560,663), Baltimore (558,485), Pittsburgh (533,905), Detroit (465,766), and Buffalo (423,715); a total of 5,449,156.

They would nearly equal in number the present population of New York, estimated in the year 1914 at 5,583,801.

These comparisons may aid in visualizing the extent of the problem of teaching merely the elements of reading and writing to illiterates in the United States who are beyond school age and of whom over a million can speak no English.

CLASSES OF ILLITERATES.

Illiterates are classed, for convenience, as native white, foreign born, Negro, others.

Native white illiterates (1,534,272) are outnumbered by foreign-born illiterates (1,650,361) by over one hundred thousand (116,089). The total number of white illiterates—native and foreign-born com-

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bined (3,184,633)—is nearly a million (956,902) more than the total number of Negro illiterates (2,227,731). Illiteracy is mainly a white man's problem, owing to the fact that the number of Negro illiterates is rapidly decreasing, whereas the number of white illiterates is increasing, due to immigration of illiterates.

Other illiterates are: Indians, 85,445, or 45.3 per cent; Chinese, 10,891, or 15.8 per cent; Japanese, 6,213, or 9.2 per cent; others, 1,250, or 39.9 per cent.

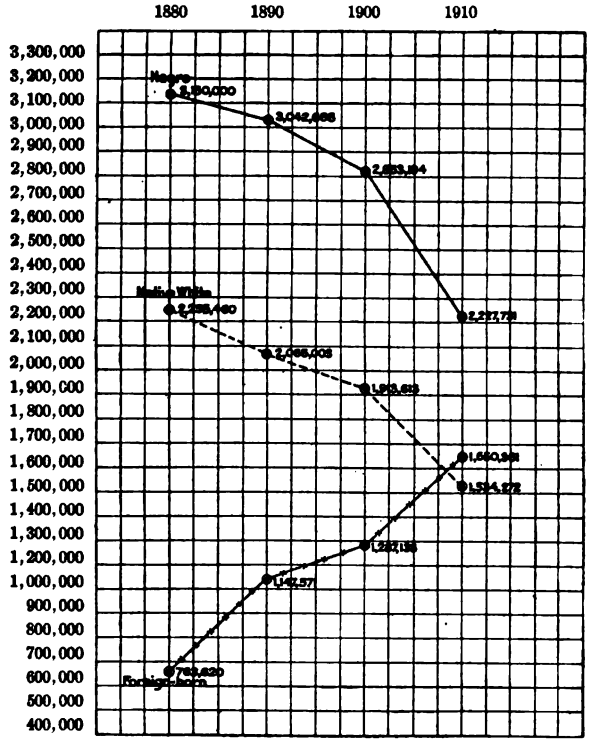

CHART 1.—Illiteracy curve, 1880-1910—Native whites; foreign-born; Negroes.

Every class of illiterates has decreased except the foreign-born illiterates; their *increase* has outbalanced the whole *decrease* of all other classes combined—native whites, Negroes, Indians, Chinese, Japanese—during the last 35 years.

In contrast with the increase of white illiterates, Negro illiterates have decreased from approximately 3,150,000 in 1880 to 2,227,731 in 1910. During the last decade, the number of Indian, Chinese, and Japanese illiterates has also decreased materially. Native-born white illiterates have decreased from 2,255,460 to 1,534,272. Since 1890 there has been a classification of native born of native parents. These have decreased from 1,890,723 to 1,378,884. Native born of foreign or mixed parentage have decreased from 174.280 to 155,388.

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Since 1880 the percentage of native whites to total population has increased, and the percentage of illiteracy among them has diminished. The percentage of foreign-born to total population has increased as well as their percentage of illiteracy. The per cent of Negroes to total population has decreased, and the decrease in percentage of illiteracy among them is marked.

Percentage of illiteracy among native whites, the foreign-born, and Negroes at certain periods.

	1880	1890	1900	1910
Native white:				
Per cent of total population	73.5	73.0	74.5	74.4
Per cent of illiteracy	9.4	6.2	4.6	3.0
Foreign born:				
Per cent of total population	13.1	14.5	13.4	14.5
Per cent of illiteracy	12.0	13.5	12.9	12.7
Negroes:				
Per cent of total population	13.1	11.9	11.6	10.7
Per cent of illiteracy	68.0	57.1	44.5	30.4

THE "BLACK BELT" OF THE NORTH.

It has long been a matter for critical comment that nearly one-fourth of the population of the Southern States is illiterate. It gives a different aspect to the situation to know that each Southern State cut its percentage of illiteracy more than 25 per cent between 1900 and 1910, and that in the South Atlantic, east South Central, and west South Central divisions, which include all the Southern States, the number of illiterates was nearly a million (938,767) less in 1910 than in 1900.

Illiteracy may be a perplexity, but is not a peril in States which are so active through public school endeavor and otherwise that they are steadily effecting wholesale reductions each decade not only in percentage but in number of illiterates. Illiteracy is chiefly a menace in those manufacturing States of the Middle Atlantic division which for 10 years—even 20 years in the State of New York—have failed to reduce their percentage of illiteracy and have increased enormously their numbers of illiterates, or, as in the case of Connecticut, have actually retrograded and increased not only in numbers of illiterates, but in percentage of illiteracy as well. The New England, Middle Atlantic, Mountain, and Pacific are the divisions which show increase in number of illiterates during the past 20 years.

The number of illiterates is steadily increasing, not in the South, but in—

Massachusetts,	Pennsylvania,	Wyoming,	Utah,
Rhode Island,	Illinois,	Colorado,	Nevada,
Connecticut,	North Dakota,	New Mexico,	Washington,
New York,	Nebraska,	Arizona,	California,
New Jersey,	Montana,		

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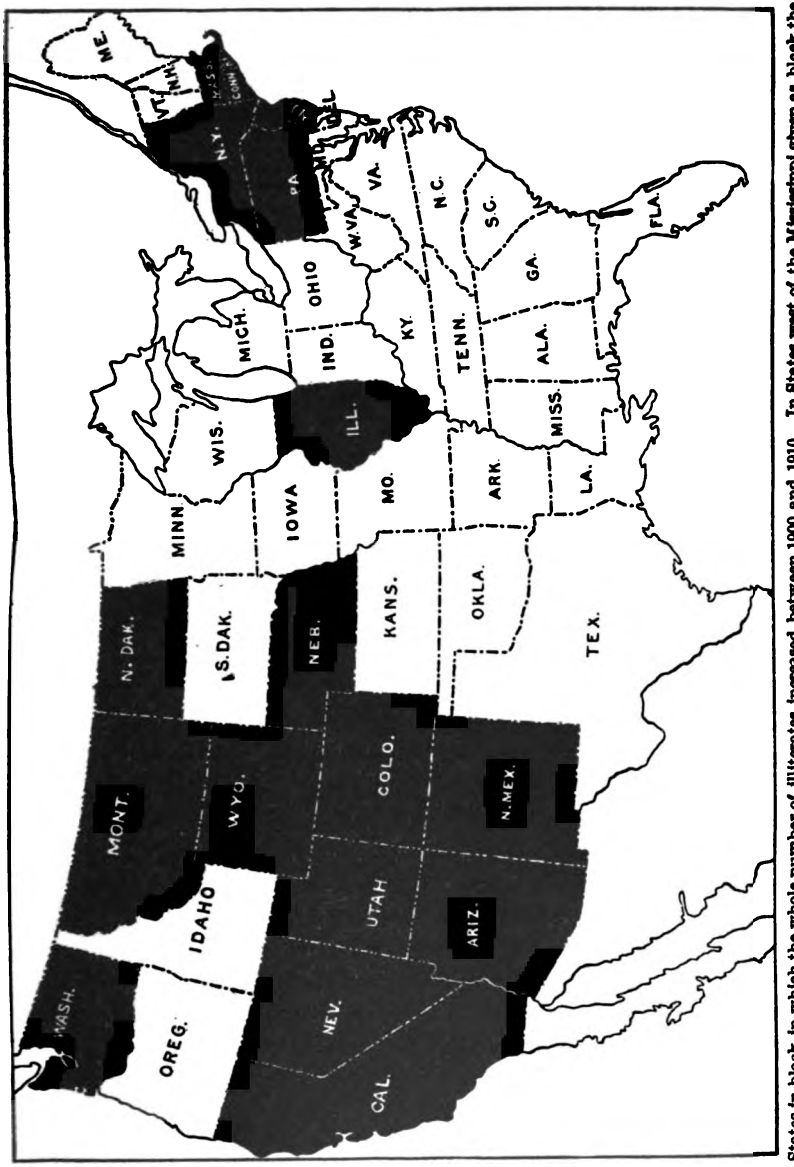
the heaviest increase being in New England and the Middle Atlantic States. During the 20 years from 1890 to 1910 the number of illiterates in Virginia, North Carolina, South Carolina, Georgia, Kentucky,



States in black in which the whole number of illiterates increased between 1900 and 1910. In States west of the Mississippi given as black the increases are smaller than in other States.

and Florida *decreased* from 2,027,951 to 1,427,063, but in Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania the number of illiterates *increased* from 790,772 to 1,103,872.

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REDUCTION OF ILLITERACY.

The fact that there are many people who can not read or write is not in itself such a menace as the fact that illiteracy is growing, remains about the same, or is not being reduced. The existing percentage of illiteracy is of far less importance than the rate of decrease of illiteracy. In the 17 States which have cut down their illiteracy 50 per cent or more in 20 years there is no menace to citizenship.

TABLE 1.—*Percentage decrease of illiteracy in 20 years, 1890–1910.*

State.	Per cent.	State.	Per cent.
District of Columbia	62	Mississippi	44
Kansas	60	Delaware	43
Wisconsin	58	West Virginia	42
Idaho	56	South Carolina	42
New Mexico	54	North Dakota	40
Maryland	54	Nevada	40
Iowa	53	Nebraska	38
Oregon	53	Ohio	38
California	53	Louisiana	36
Washington	52	New Hampshire	32
Arkansas	52	South Dakota	30
Missouri	52	Colorado	29
Florida	50	Illinois	28
Indiana	50	Maine	25
Minnesota	50	Rhode Island	21
Tennessee	50	Massachusetts	16
Virginia	50	New Jersey	16
Georgia	49	Pennsylvania	16
Texas	49	Montana	13
North Carolina	48	Arizona	10
Utah	46	Wyoming	3
Michigan	45	New York	0
Vermont	45	Oklahoma	−3
Alabama	44	Connecticut	−13
Kentucky	44		

The percentage of illiteracy in the United States has been lowered during 20 years from 13.3 per cent in 1890 to 10.7 per cent in 1900 and 7.7 per cent in 1910; but the number of illiterates has decreased less than 15 per cent and the number of foreign-born illiterates has increased 43 per cent.

The percentage of illiteracy in the Southern States has been reduced one-half in the last two decades, but in the Middle Atlantic States—along the Atlantic seaboard—there has been slight decrease in percentage and large increase in numbers, owing possibly to lack of realization on the part of the general public and educators of changed conditions due to the new type of foreign immigration.

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The following table shows the changes in illiteracy as affecting all classes during the 20 years from 1890 to 1910:

TABLE 2.—*Changes during 20 years in number of illiterates in the population 10 years of age and over.*

	Year.	Per cent.	Total.	Male.	Female.
All classes	1910	7.7	5,516,163	2,814,950	2,701,213
	1900	10.7	6,180,069	3,011,224	3,168,845
	1890	13.3	6,324,702	3,008,222	3,316,480
White	1910	5.0	3,184,633	1,622,505	1,522,128
	1900	6.2	3,200,746	1,567,163	1,633,593
	1890	7.7	3,212,574	1,517,722	1,694,852
Negro	1910	30.4	2,227,731	1,096,000	1,131,731
	1900	44.5	2,853,194	1,371,432	1,481,762
	1890	57.1	3,042,668	1,438,923	1,603,745
Indian, Chinese, Japanese, and all other	1910	31.6	103,799	56,445	47,354
	1900	44.5	126,129	72,639	53,490
	1890	45.2	69,460	51,577	17,883
Native white	1910	3.0	1,534,272	796,055	738,217
	1900	4.6	1,913,611	955,517	958,094
	1890	6.2	2,065,003	978,408	1,096,595
Native parentage	1910	3.7	1,378,884	715,926	662,958
	1900	5.9	1,734,764	862,175	872,589
	1890	6.2	1,890,723	888,415	1,002,308
Foreign or mixed parentage	1910	1.1	155,388	80,129	75,259
	1900	1.6	178,847	93,342	85,505
	1890	2.2	174,280	89,993	84,287
Foreign-born white	1910	12.7	1,650,361	866,450	783,911
	1900	11.3	1,287,135	611,636	675,499
	1890	13.1	1,147,571	539,314	608,257

It is natural that in all the States where illiteracy is common the decrease each decade should be large. Decrease in illiteracy must mainly come through the public schools, although an increasingly large work must devolve upon other agencies, such as immigrant associations, the Christian and Hebrew Young Men's and Young Women's Associations, workers among the mountain whites, and such institutions as Hampton and Tuskegee among the Negroes.

Decrease of illiteracy is due not wholly to effort on the one hand and indifference on the other, though these are important factors. A State may have a great influx of illiterates and in the sum total put forth great effort to decrease illiteracy, yet the increase may be constant because of immigration, while in another State with the same degree of effort better results are attained because there is not a corresponding increase in number of illiterates coming into the State.

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In Table 3 is shown the positive degree of illiteracy in each State in 1910.

TABLE 3.—*Percentage of illiteracy, by States, 1910.*

State.	Per cent of illiteracy.	State.	Per cent of illiteracy.
Iowa	1.7	New York	5.5
Nebraska	1.9	New Jersey	5.6
Oregon	1.9	Oklahoma	5.6
Washington	2.0	Pennsylvania	5.9
Idaho	2.2	Connecticut	6.0
Kansas	2.2	Nevada	6.7
Utah	2.5	Maryland	7.2
South Dakota	2.9	Rhode Island	7.7
Minnesota	3.0	Delaware	8.1
Indiana	3.1	West Virginia	8.3
North Dakota	3.1	Texas	9.9
Michigan	3.2	Kentucky	12.1
Ohio	3.2	Arkansas	12.6
Wisconsin	3.2	Tennessee	13.6
Wyoming	3.3	Florida	13.8
California	3.7	Virginia	15.2
Colorado	3.7	North Carolina	18.5
Illinois	3.7	New Mexico	20.2
Vermont	3.7	Georgia	20.7
Maine	4.1	Arizona	20.9
Missouri	4.3	Mississippi	22.4
New Hampshire	4.6	Alabama	22.9
Montana	4.8	South Carolina	25.7
District of Columbia	4.9	Louisiana	29.0
Massachusetts	5.2		

Prior to 1900 changes in illiteracy were less striking than in the decade from 1900 to 1910, owing to a more literate type of immigration.[1] For example, the State of Washington was numerically small in 1900, the population being 408,437. In 1910 there had been an increase in population of 128 per cent, to 934,332, yet at the same time there was a decrease in illiteracy of 35 per cent, the immigration being mainly from Canada, England, and countries in northwestern Europe. In the State of Illinois, however, where the increase, 475,636, may be compared with the increase of 525,895 in Washington, a much smaller number were foreign-born, but the foreign-born were of a more illiterate type, and this fact would be important in affecting the decrease in percentage of illiteracy during the decade, only 11.9 per cent. New York, New Jersey, Connecticut, Pennsylvania, and other eastern manufacturing States were still more unfavorably affected by the type and amount of immigration.

[1] In Table 4, opposite the percentage of decrease of illiteracy, is given the percentage of increase in population during these 10 years.

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TABLE 4.—*Showing percentage of decrease of illiteracy from 1900 to 1910, percentage of increase of population from 1900 to 1910, with number and percentage of illiterates and total population.*

Rank.	State.	Percentage of decrease in illiteracy.	Percentage of increase in population.	1910			1900		
				Number of illiterates.	Per cent.	Population.	Number of illiterates.	Per cent.	Population.
1	Idaho	52.1	107.8	5,453	2.2	249,018	5,505	4.6	119,837
2	Nevada	49.6	99.7	4,702	6.7	69,822	4,645	13.3	34,959
3	North Dakota	44.6	85.3	13,070	3.1	424,730	12,719	5.6	229,161
4	Dist. of Columbia	43.0	20.3	13,812	4.9	279,088	20,028	8.6	231,837
5	Oregon	42.7	69.2	10,504	1.9	555,631	10,686	3.3	328,791
6	South Dakota	42.0	50.6	12,750	2.9	443,466	14,832	5.0	294,304
7	Maryland	39.6	11.2	73,397	7.2	1,023,950	101,947	8.4	920,715
8	New Mexico	39.1	69.8	48,697	20.2	240,990	46,971	33.2	141,282
9	Arkansas	38.2	21.3	142,954	12.6	1,134,087	190,655	20.4	934,332
10	Florida	36.9	41.3	77,816	13.8	564,722	84,285	21.9	385,490
11	Vermont	36.2	3.6	10,806	3.7	289,128	16,247	5.8	278,943
12	Washington	35.4	128.5	18,416	2.0	933,556	12,740	3.1	408,437
13	North Carolina	35.2	17.2	291,497	18.5	1,578,595	386,251	28.7	1,346,734
14	Tennessee	34.3	9.4	221,071	13.6	1,621,179	306,930	20.7	1,480,948
15	Virginia	33.6	12.2	232,911	15.2	1,536,297	312,120	22.9	1,364,501
16	Missouri	32.8	9.3	111,116	4.3	2,594,600	152,844	6.4	2,371,865
17	Indiana	32.6	9.7	66,213	3.1	2,160,405	90,539	4.6	1,968,215
18	Alabama	32.6	18.1	352,710	22.9	1,541,575	443,590	34.0	1,304,703
19	Delaware	32.5	12.7	13,240	8.1	163,080	17,531	12.0	145,500
20	Georgia	32.1	19.4	389,775	20.7	1,885,111	480,420	30.5	1,577,334
21	Wisconsin	31.9	17.2	57,769	3.2	1,829,811	73,779	4.7	1,561,156
22	Texas	31.7	31.6	282,904	9.9	2,848,904	314,018	14.5	2,163,913
23	Mississippi	30.0	17.7	290,235	22.4	1,293,180	351,461	32.0	1,098,891
24	California	29.9	64.2	74,902	3.7	2,007,698	58,959	4.8	1,222,111
25	South Carolina	28.4	14.4	276,980	25.7	1,078,161	338,659	35.9	942,402
26	Arizona	27.9	66.5	32,953	20.9	157,659	27,307	29.0	94,147
27	West Virginia	27.2	28.8	74,866	8.3	1,221,119	80,105	11.4	958,800
28	Minnesota	26.8	23.2	49,366	3.0	1,628,035	52,946	4.1	1,305,857
29	Kentucky	26.3	8.3	208,084	12.1	1,722,644	262,954	16.5	1,589,685
30	Iowa	26.0	2.8	29,889	1.7	1,760,286	40,172	2.3	1,711,789
31	New Hampshire	25.8	4.8	16,386	4.6	354,118	21,075	6.2	337,893
32	Louisiana	24.6	20.5	352,179	29.0	1,213,576	381,145	38.5	990,364
33	Michigan	23.9	17.9	74,800	3.2	2,236,252	80,482	4.2	1,896,265
34	Montana	21.3	58.4	14,457	4.8	303,551	11,675	6.1	191,596
35	Kansas	20.6	13.9	28,968	2.2	1,321,562	32,513	2.9	1,126,033
36	Ohio	20.0	17.3	124,774	3.2	3,848,747	131,541	4.0	3,289,921
37	Maine	19.7	6.8	24,554	4.1	603,893	29,060	5.1	565,440
38	Utah	19.3	39.0	6,821	2.5	274,778	6,141	3.1	196,769
39	Wyoming	17.5	63.0	3,874	3.3	117,585	2,878	4.0	72,062
40	Nebraska	13.0	15.5	18,009	1.9	924,032	17,997	2.3	799,755
41	Colorado	11.9	50.6	23,780	3.7	640,846	17,779	4.2	425,424
42	Illinois	11.9	20.5	168,294	3.7	4,493,794	157,958	4.2	3,727,745
43	Massachusetts	11.8	20.9	141,541	5.2	2,742,684	134,043	5.9	2,267,048
44	Rhode Island	8.3	2.6	33,854	7.7	440,065	29,004	8.4	344,824
45	Oklahoma	5.3	113.3	67,567	5.6	1,197,476	67,826	12.1	561,379
46	New Jersey	5.0	36.9	113,502	5.6	2,027,946	86,658	5.9	1,480,498
47	Pennsylvania	3.2	22.9	354,290	5.9	6,007,750	299,376	6.1	4,885,379
48	New York	0.0	27.7	406,020	5.5	7,410,819	318,100	5.5	5,801,682
49	Connecticut	[1] 1.6	23.3	53,665	6.0	901,026	42,973	5.9	730,454

[1] Increase of illiteracy.

The increase in the number of illiterates is most notable in Rhode Island, Connecticut, New Jersey, New York, and Pennsylvania. There is also an increase in Illinois; a large relative increase in Montana, Colorado, Wyoming, Idaho, Washington, and Arizona; and a small relative increase in Oregon.

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The positive degree of illiteracy in each State is exhibited in Table 5, which shows the rank of States by illiteracy in 1910; numbers of illiterates in 1890, 1900, and 1910; decrease of illiteracy in 1900 and 1910; per cent of decreases from 1890 to 1910; and comparisons in percentage of illiteracy and numbers of illiterates by States in 1890, 1900, and 1910.

TABLE 5.—*Showing rank of States by illiteracy in 1910, decrease of illiteracy and percentage 1890–1910, with comparative chart showing percentage of illiteracy and number of illiterates for 1910, 1900, and 1890.*

[Figures in the column headed with an asterisk (*) give per cent decrease in 20 years, 1890–1910.]

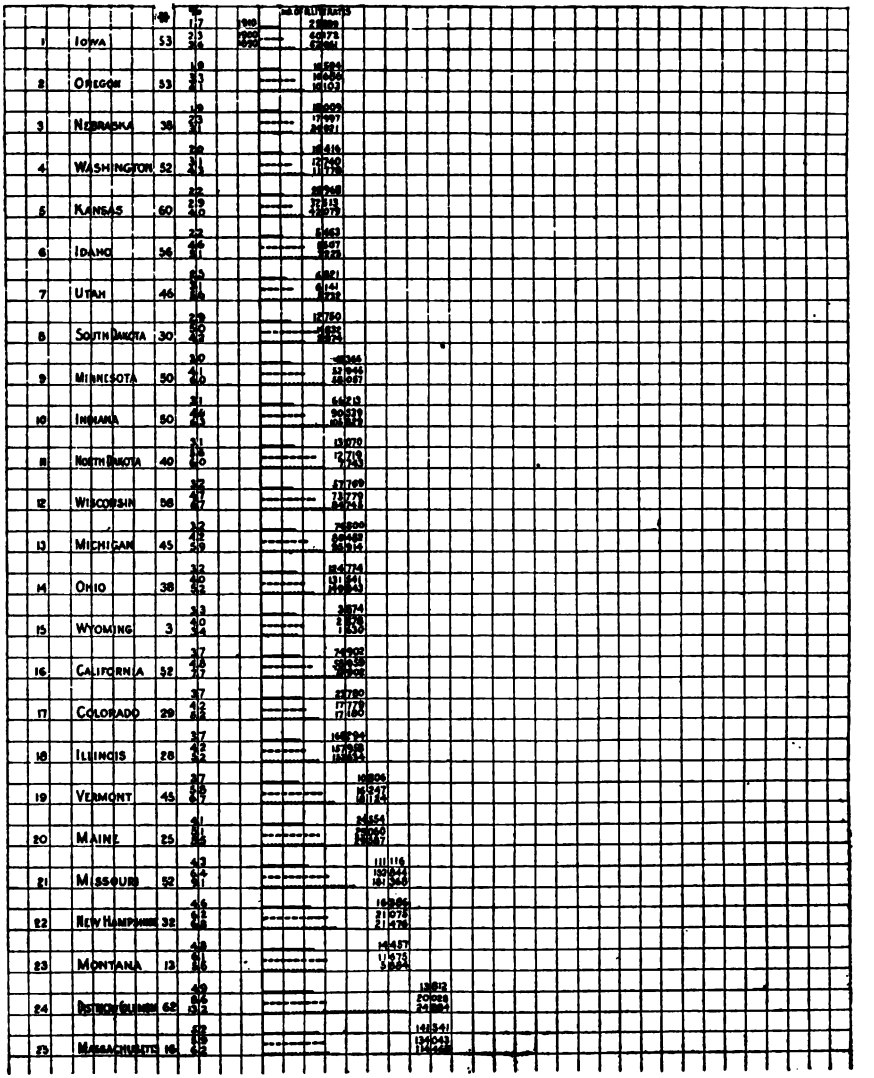

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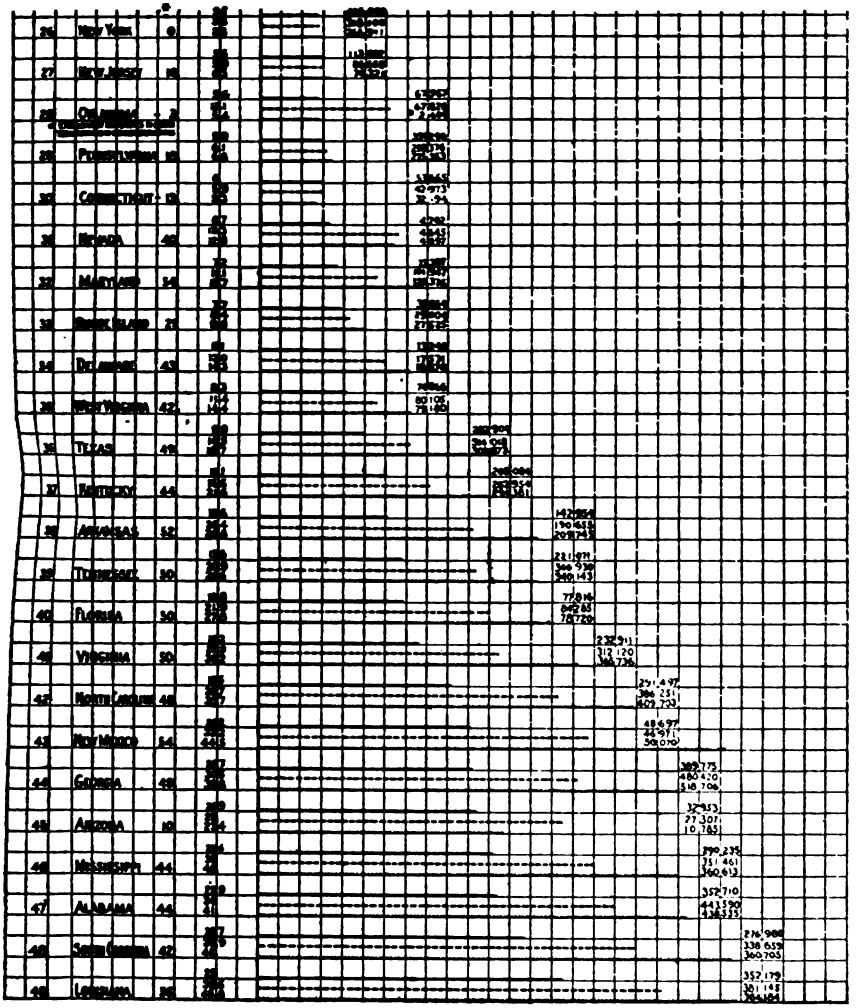
TABLE 5.—*Showing rank of States by illiteracy in 1910, decrease of illiteracy and percentage 1890–1910, with comparative chart showing percentage of illiteracy and number of illiterates for 1910, 1900, and 1890*—Continued.

[Figures in the column headed with an asterisk (*) give per cent decrease in 20 years, 1890–1910.]



In New York State there are more than 406,000 illiterates, of whom 362,025, or nearly 80 per cent, are foreign-born. In New York City there are 254,000, an increase of 72,000 from 1900 to 1910, while the percentage of illiteracy remains the same as then; 96 per cent of these are foreign-born. Pennsylvania has 354,000 illiterates; New Jersey, 113,000; Connecticut, 53,000, an increase of 11,000 in 10 years. In these four States are one-fifth of all the illiterates in the United States.

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In one typical manufacturing town in Connecticut the population is more than 50 per cent foreign-born at the present time; 10 years ago it was 15 per cent. The town is inundated with non-English-speaking people, highly illiterate, with foreign ideals and customs, and standards of a low order. This condition is general throughout the manufacturing towns of New England and the Middle Atlantic States.

The problem of adult illiteracy is ignored commonly in the manufacturing States where the relative percentage of illiteracy is small, but where the number of illiterates is great.

In New York State, of the population over 21 years of age, 6 out of every 100 can neither write nor read; in Maine and Vermont, 5; in New Hampshire, Massachusetts, and Connecticut, 6; in New Jersey, 7; in Pennsylvania, nearly 8; in Rhode Island, 9; in Delaware, 10; and little is being done to relieve the situation, which has a direct bearing on unemployment and industrial unrest.

Effective measures to reduce adult illiteracy can become possible by closer cooperation between industry and education. Industry can make it possible by allowance of time and wage to enable illiterate adult workers—who can earn usually but small wages, often because of their illiteracy and the things that go with illiteracy—to learn to read and write, and in a minimum time of 60 hours enable them to surmount their worst obstacles to progress. The public schools can provide teachers. Illiterate workers are expensive workers. There seems to be no more effective, practical, and economical way of meeting the problem of the employed adult illiterate than by means of the workers' public-school day class. By its adoption much needless industrial inefficiency and social waste may rapidly be eliminated.

RURAL AND URBAN ILLITERACY.

More than two-thirds of all illiterates are country dwellers; the percentage of illiteracy in country districts (10.1) is nearly twice that in the cities (5.1); but the decrease in illiteracy in rural communities and small towns during the decade 1900–1910 is more marked than in cities, because large numbers of illiterate foreign-born have settled in the cities, where work is obtainable immediately after landing.

Of illiterates living in the country (3,748,031), the native whites were 1,342,372; foreign-born, 477,870; Negroes, 1,834,458. Of illiterates living in towns and cities (1,768,132), the native whites were 191,900; foreign-born, 1,172,491; Negroes, 393,273. Therefore the urban problem in removing illiteracy deals mainly with foreign-born; the rural problem, with Negroes and native whites.

Foreign-born illiterates are found mainly in towns and cities of the New England States (222,030), Middle Atlantic States (582,756),

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east North Central States (217,771); native white illiterates mainly in rural communities of the South Atlantic States (400,507), east South Central States (362,178), west South Central States (217,719); and Negro illiterates mainly in rural communities of the South Atlantic States (810,526), east South Central States (581,250), west South Central States (411,370).

ILLITERATE MALES OF VOTING AGE.

Two and one quarter millions (2,273,603) of the total male population of voting age (26,999,151) were illiterate, or more than 8 (8.4 per cent) out of every 100.

One-third of these illiterates (788,631) were foreign-born, although in the total population the foreign-born form less than 14 per cent.

Since 1900 the number of illiterate foreign-born males of voting age has increased over 220,000, whereas among native white males of voting age the number of illiterates has decreased by 50,000 and among Negroes of voting age over 150,000.

ILLITERACY BY AGE GROUPS.

Half the illiterate population (48.1 per cent) are between 20 and 45 years old and can be taught to read and write without difficulty, if an effort is made to reach them through their occupations. They are beyond school age, and rarely will attend night schools, owing to fatigue from labor, other duties, or indifference. Only those under 20 years of age, amounting to 16 per cent, can be reached by the schools under any present law of compulsory attendance.

The following summary shows the percentage of illiteracy at different ages to total illiteracy:

Age.	Number.	Per cent.
10–14	370,136	6.7
15–19	448,414	9.0
20–24	622,073	11.2
25–34	1,102,384	19.9
35–44	940,510	17.0
45–54	829,153	15.0
55–64	607,754	11.0
65 and over	573,799	10.4
Total	5,516,163	100.2

Children under 10 years of age are not classed as illiterates. Those between 10 and 14 who have not learned to write their names are properly termed illiterate, although not beyond school age; they seldom return to school; they may be defective. They form but a small per cent (6.7 per cent) of the whole number. Those between 15–19 are but 9 per cent. Thus 83.3 per cent of all illiterates are

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over 20 years old and generally are earning a living, if not diseased or defective. Ordinary school opportunities are not able to satisfy their needs; special educational methods better adapted to adults are required.

ILLITERACY BY SEX.

Illiteracy is common to both sexes. Illiterate males (2,814,950) outnumber illiterate females (2,701,213) by more than one hundred thousand (113,637). This may be due to two causes: (1) Males outnumber females in the total population by 106 to 100. (2) Male immigrants outnumber female, and in the foreign-born population, many of whom are illiterate, males outnumber females by 129.2 to 100.

The percentage of illiteracy, however, in the United States as a whole, among females (7.8 per cent) is slightly greater than among males (7.6 per cent) due to the larger percentage of illiteracy among foreign-born women and Negro women.

	Male illiterates.	Female illiterates.
	Per cent.	*Per cent.*
Native white	3.1	2.9
Foreign-born	11.8	13.9
Negro	30.1	30.7

Excluding children under 10 years of age, 76 males (7.6 per cent) out of every 1,000 are illiterate; 78 females (7.8 per cent) out of every 1,000 are illiterate.

II. ILLITERACY OF IMMIGRANTS.

Illiteracy bears intimately upon many national problems. The Government of the United States is a government by representation, and its integrity and effectiveness depend upon the intelligence of all the people. Intelligence rests mainly upon easy transfer of thought and information from one person to another by the printed page. Therefore any material increase in the number of those who can not read affects quality of citizenship and the representative basis of government. In an illiterate community the sense of civic responsibility is at its lowest, and disease, social isolation, and industrial inefficiency are found in highest degree.

It is difficult for those who can read easily to form even a bare conception of the mental limitations of the illiterate, the near-illiterate, and the nonreader. It is still harder to appreciate the material handicaps to earning a livelihood entailed by illiteracy. While illiteracy does not necessarily imply ignorance, it does predicate lack of information, comprehension, and understanding. It increases

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prejudice, suspicion, and passion, and diminishes mutual appreciation and power to cooperate; yet cooperation is the essence of modern civilization, and inability to cooperate is the basis of race hatred. So that illiteracy is clearly a just topic for national solicitude and its eradication a proper subject for governmental action.

The people of the United States have not only the ability and opportunity to diminish illiteracy materially, but they also have an effective means. They possess a public-school system which when supported by public sentiment is equipped to reach out to every adult illiterate industrially employed. It has been proved to be economically practicable and advantageous in every way to extend public-school instruction in reading and writing to illiterates in factories and other work places. The proper adaptation of public-school teaching to adult illiterates can be made to increase materially individual ability for self-support and thereby the prosperity of all.

This adequate means for education of adults is at hand, its wider use is practicable, and the public may insist rightfully that every illiterate immigrant shall acquire at least ability to read and write in English as a condition of continued residence. Women employers in the home and managers in industry should require elementary schooling for all illiterates in their employ, and by encouragement and aid substitute in them hopefulness for apathy, intelligence for ignorance, and confidence for jealousy and distrust.

The handicap of illiteracy is a potent cause of social waste and industrial unrest. Immigrant illiteracy is a matter of vital concern to national prosperity, the more so because its evil results are not always directly evident. This will be more generally acknowledged as the American public becomes acutely conscious of the inevitable implications of illiteracy.

Immigration is steadily increasing, but it is chiefly from those countries where there is no public-school system or where the public-school system is of recent origin and is inadequate, so that the number of illiterate immigrants grows rapidly and entails larger and larger expenditure of public funds and private charity for the unemployable, the defective, the diseased, and the delinquent.

The immediate effect of the European war has been to cut off immigration almost wholly, and the problem of meeting new immigrant illiteracy may seem temporarily to be in abeyance; but immigration has always been greatly stimulated by prosperity of industry in the United States, and it is likely that in any period of stagnation and discouragement which may occur as a reaction abroad after the war, like that in the South after the Civil War, relative prosperity in the United States will attract greater numbers than ever.

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PUBLIC POLICY TOWARD IMMIGRANT ILLITERACY.

The choice of policy toward immigrant illiterates possible for the United States seems to be—(1) to debar illiterates from admission, (2) to accept all illiterates without condition, or (3) to supply school-

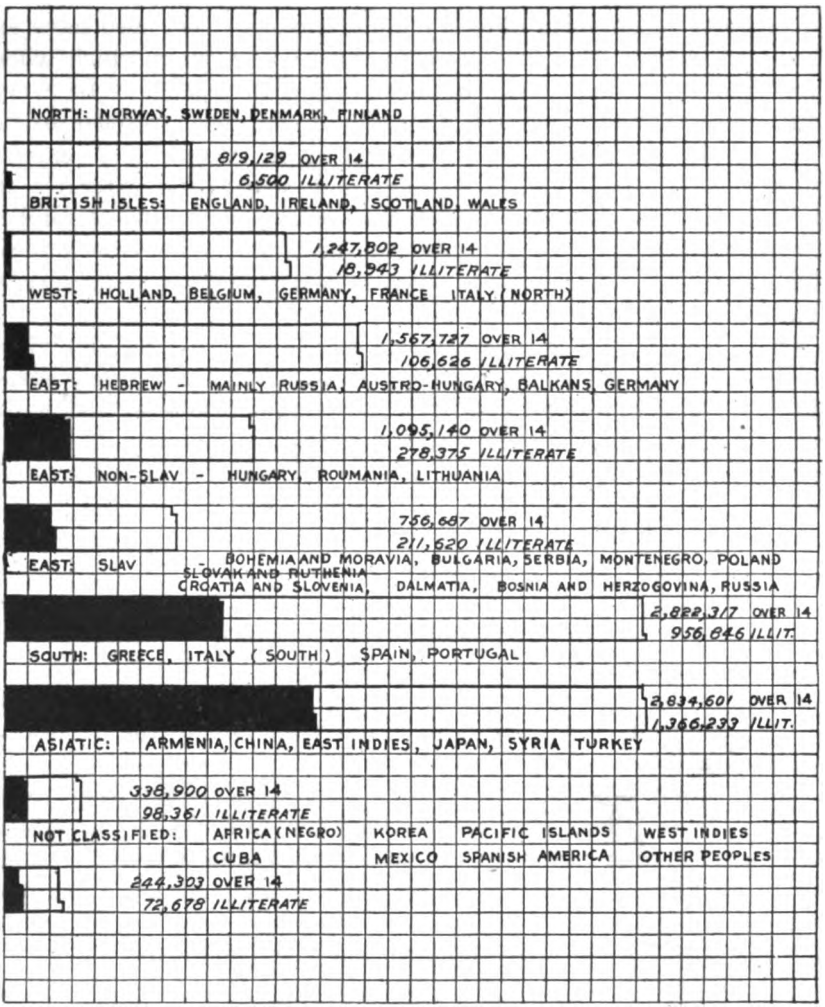
NORTH: NORWAY, SWEDEN, DENMARK, FINLAND
819,129 OVER 14
6,500 ILLITERATE
BRITISH ISLES: ENGLAND, IRELAND, SCOTLAND, WALES
1,247,802 OVER 14
18,343 ILLITERATE
WEST: HOLLAND, BELGIUM, GERMANY, FRANCE ITALY (NORTH)
1,567,727 OVER 14
106,626 ILLITERATE
EAST: HEBREW - MAINLY RUSSIA, AUSTRO-HUNGARY, BALKANS, GERMANY
1,095,140 OVER 14
278,375 ILLITERATE
EAST: NON-SLAV - HUNGARY, ROUMANIA, LITHUANIA
756,687 OVER 14
211,620 ILLITERATE
EAST: SLAV - BOHEMIA AND MORAVIA, BULGARIA, SERBIA, MONTENEGRO, POLAND
SLOVAK AND RUTHENIA
CROATIA AND SLOVENIA, DALMATIA, BOSNIA AND HERZOGOVINA, RUSSIA
2,822,317 OVER 14
956,846 ILLIT.
SOUTH: GREECE, ITALY (SOUTH) SPAIN, PORTUGAL
2,834,601 OVER 14
1,366,233 ILLIT.
ASIATIC: ARMENIA, CHINA, EAST INDIES, JAPAN, SYRIA TURKEY
338,900 OVER 14
98,361 ILLITERATE
NOT CLASSIFIED: AFRICA (NEGRO) KOREA PACIFIC ISLANDS WEST INDIES
CUBA MEXICO SPANISH AMERICA OTHER PEOPLES
244,303 OVER 14
72,678 ILLITERATE

CHART 2.—Number of immigrants over 14 years of age and number of illiterate immigrants by geographical divisions, 1900–1914. Each square represents 50,000. Black spaces represent illiterates.

ing and require school attendance from all adult immigrants not mentally defective until they learn to read and write.

If the first course is not acceptable as a preferred public policy on the ground that it deprives the United States of a type of immigrant that may otherwise be valuable or because it is opposed to the

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American spirit of freedom of opportunity to all, the second or third course remains.

The policy of "let well enough alone" is followed at the present time. This has resulted in a large increase in the number of persons who, for lack of knowledge, become unemployable as fast as machine process displaces the hand labor to which they are habituated. For example, the sale of hand shovels is less than one-third of what it was a decade or more ago, owing to the substitution of steam shovels, scoops, ditch diggers, and mechanical conveyors in most digging and shoveling operations. This mechanical revolution of one of the most simple forms of work has lessened materially the demand for a type of labor which for centuries has supplied a living to illiterates, but which now is rapidly shrinking as a field of opportunity for them. The same may be noticed in every industry; the world has less and less use for the unschooled and untrained in mind and hand.

The do-nothing policy has been costly in many respects. The percentage of avoidable accidents is increased through the inability of workers to read danger warnings or comprehend directions which would prevent accidents.

Inability to read involves waste of raw material in many industrial operations, entailing needless expense in manufacture and disappointment and irritation with regard to expected earnings.

In industrial organizations illiteracy results in ignorance of essential information and important work directions, and this causes misunderstanding and friction. It is noteworthy that industrial centers characterized by a high percentage of illiteracy are especially subject to costly and prolonged labor difficulties; notable examples have been Lawrence, Mass., Paterson, N. J., and the Colorado mining districts.

The third policy implies a certain degree of wisdom and foresight in requiring the provision and utilization of public elementary instruction for all who are children in mind though adults in years. Many communities provide some opportunity for adult instruction in evening schools, though not always carefully planned for and adapted to the requirements of adult illiterates, but it has been found that under present newer industrial conditions the evening school reaches comparatively few illiterate workers. Many who enroll in these classes are unable to persevere. Some of the more common reasons are physical fatigue after the day's muscular labor; nervous fatigue from intense application in rapid-process work; brain fag due to faulty work conditions, poor ventilation, bad illumination, unnecessary noise and vibration; absence of interest; lack of incentive.

Many unschooled aliens, since they are but children of a larger growth, will remain illiterate, just as many children do, unless under

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compulsion to learn. Ambition to learn may be absent. More frequently there is a sense of reluctance to admit lack of schooling. Some employers of the unthinking type, moreover, even discourage efforts to learn on the part of the illiterates in their employ, never

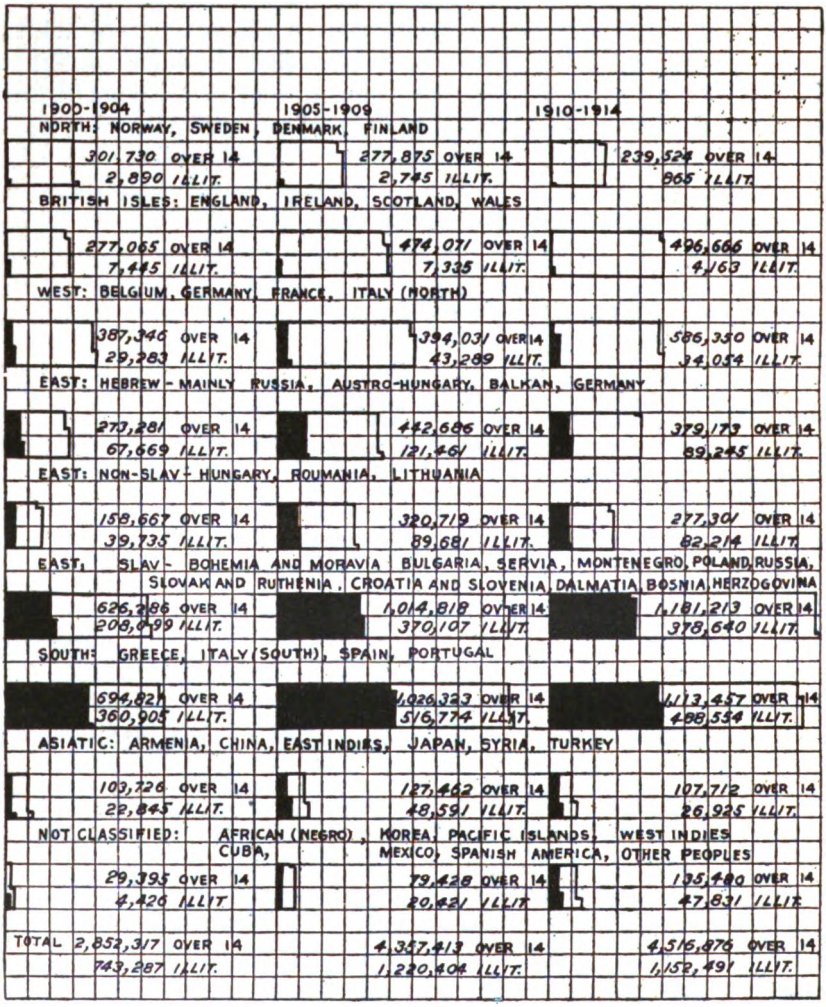

CHART 3.—Number of immigrants over 14 years of age and number of illiterate immigrants by geographica divisions and by five-year periods. Each square represents 50,000. Black spaces indicaate illiterates.

having realized that financial loss is incurred thereby and that even in the most unskilled work ignorant labor in general is costly labor.

For these and similar reasons the workers' class in daylight hours is a practical working measure to meet this new labor situation—a situation as new as industrial processes are new and of ever-increasing importance as the demand for unintelligent labor decreases.

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VALUE AND BEARING OF ILLITERACY STATISTICS.

It is misleading simply to compare the numbers of illiterates admitted in successive years, because the volume of immigration diminishes in times of industrial depression and increases in times of industrial activity. For instance, 1907 was a year of great prosperity and heavy immigration until interrupted by the financial panic; in 1908 immigration fell off among all European races except the French, and among many races it decreased over one-half—among south Italians from 242,000 to 110,000. A similar, though less marked, industrial depression, with consequent decrease of immigration, occurred in 1904 and again in 1911. Thus each five-year period from 1900 to 1914 contained a period of depression, and it becomes possible to make comparisons between these periods with a fair degree of correctness.

The statistical study of illiteracy is like the study of vital statistics in showing trend or tendency of the times. It is of slight value or interest to know the illiteracy percentage or number of illiterates for any race or city unless these data may be compared with similar data for other years. It is of importance, however, in the study of industrial unrest, social disorder, and political conditions, and in the task of shaping legislation with intelligence, to know whether the population is becoming more illiterate or less so as the years go by; whether illiteracy is diminishing among certain elements of the population and increasing among certain other elements; whether congestion of cities with illiterates is more and more associated with segregation of communities, isolation of individuals, and decreased civic spirit as a result; and especially whether the adult population among the foreign-born, who have mainly suffered from lack of schooling, are being supplied with that minimum of mental equipment which will enable them to prosper and avoid exploitation by the unscrupulous.

The accompanying data and charts have been prepared to show the tendencies on the part of various races to send us more or less of their illiterate population and to indicate the decrease and increase of numbers of illiterates and percentage of illiteracy from year to year. In general, it will be noted that there is a slight but steady decrease in percentage of illiteracy among the immigrants of most races, although the number of foreign-born illiterates has increased rapidly as immigration has increased.

BASIS OF STATISTICS OF IMMIGRANT ILLITERACY.

When immigrants are admitted to the United States, inquiry is made by immigration inspectors as to ability to read and write. Some can read but not write; others can write but not read. Among

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Lithuanians, for instance, many are able to read who are unable to write; but as a rule ability to read only or to write only is exceptional. In this study all are classed as illiterate who are unable to read and write in some language, not necessarily the English language. In discussion of literacy tests, it has been assumed at times by persons otherwise well informed that an immigrant is expected to be able to read and write in English in order to be classed as literate, but literacy implies ability to read or write either in the native language or in some other language.

No actual test of illiteracy is made among immigrants. The immigrant is not asked to read any printed matter; consequently the record of illiteracy rests upon the bare statement of the immigrant; yet, because no reason exists for making false statements, it is believed that untruthful answers are seldom given, and that statistics as recorded approximate closely the actual truth.

In a country like the United States, with long and open borders, a certain number of immigrants succeed in evading immigration officials, and their entrance is not recorded; but the percentage of error from this cause is so slight as to be almost negligible.

NUMBER OF ILLITERATES AND PERCENTAGE OF ILLITERACY AMONG FOREIGN-BORN.

Much stress is laid commonly upon percentage of illiteracy, yet from the practical viewpoint percentage of illiteracy in any given race or people is of far less importance than the number of illiterates admitted, except that races having a large percentage of illiteracy have generally contributed the largest numbers of immigrants. Nearly 11,000 illiterates from France, which has a percentage of illiteracy as low as 7 per cent, are of more practical importance to the United States than are 3,000 from Korea, which has 37.5 per cent of illiteracy; and the coming of 278,000 illiterate Hebrews from a people with a percentage of illiteracy of 25.4 means more to the cities of New York and Philadelphia than does the much smaller number of 57,000 Portuguese with the far higher illiteracy percentage of 65.1.

The basis of evaluation of immigrant illiteracy is the proportion existing between, first, the ratio of illiterates in any given race to the total number of illiterates and, second, the ratio of number of adults of that race to the total number of adults admitted during the same period of time.

This relation would properly serve as an index of immigrant illiteracy. Thus a race such as the Poles, who supply 14.4 per cent of the whole number of illiterates and are 10.6 per cent of all adult immigrants, would have a much lower index figure of illiteracy than would the Slovaks, who also supply nearly 14 per cent of illiterates, but

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whose percentage of adults to the whole number of adult immigrants is only 4 per cent.

An index figure of illiteracy calculated upon this basis would serve as an important indication of relative cost to the United States of the assimilation of specific alien races. While immigration legislation of a restrictive nature may be affected in some degree by prejudice or by sentiment, such legislation must rest in the end upon economic grounds, and as a guide for legislation an index figure of illiteracy would be suggestive and helpful, as would be also in even greater

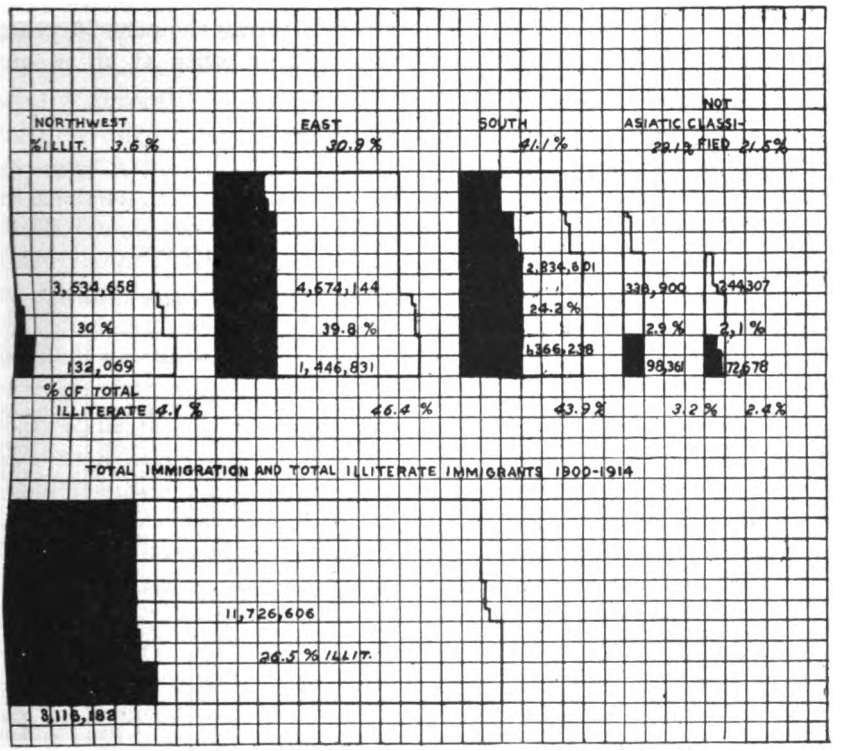

CHART 4.—Immigrant illiterates, 1900–1914, and number of immigrants over 14 years of age by geographical divisions. Each square represents 50,000. Black spaces indicate illiterates.

degree an index figure of physical disability, disease, mental defectiveness, and delinquency.

CLASSIFICATION BY CENSUS PERIODS.

Because recent statistics for comparative study are available only since 1899, it has seemed best to make the analysis of them correspond as far as possible with the census period of 1910. The census for 1910 was taken as of April 15, 1910, and data relating to immigrants subsequent to that date were excluded. As the fiscal year for the United States Bureau of Immigration ends on June 30, the figures

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given in the Reports of the Commissioner of Immigration for the years 1900 to 1909, inclusive, correspond with the figures of the census of 1910.

For this reason the statistics for the year 1899 have been omitted in order to parallel the immigration record with the census figures. The period from 1900 to 1914, inclusive, is divided conveniently into the three five-year periods, 1900–1904, 1905–1909, and 1910–1914, for purposes of easy comparison and to provide simple methods for automatic checking up of totals and insuring accuracy of compilation.

Eleven millions of immigrants over 14 years of age (11,726,606) have been admitted into the United States during the past 15 years. One-fourth of this number could not read or write at all in any language.

Illiteracy of immigrants.

Total number of immigrants, 1900–1914, inclusive	13,377,087
Number over 14 years of age	11,726,606
Number illiterate	3,116,182
Ratio of illiterates to number over 14 per cent	26.55

TABLE 6.—*Illiterate immigrants, by nationalities, during certain periods.*

	Total.	1910–1914	1905–1909	1900–1905
Italian (southern)	1,208,703	415,806	458,415	334,482
Polish	451,406	179,358	174,241	97,807
Hebrew	278,375	89,245	121,461	67,669
Croatian	141,797	40,264	57,791	43,742
Lithuanian	121,992	48,011	48,736	25,245
Ruthenian	116,935	55,218	44,188	17,529
Slovak	94,030	20,700	35,166	38,164
Greek	87,496	41,916	34,875	10,705
Russian	78,133	54,370	20,925	2,838
Portuguese	57,010	23,897	18,480	14,633
Bulgarian	52,502	18,722	28,179	5,661
Italian (northern)	46,063	10,124	18,725	17,214
German	45,782	16,344	19,538	9,900
Roumanian	44,817	21,520	20,008	3,289
Magyar	44,811	12,683	20,937	11,191
Mexican	43,879	33,037	10,458	384
Japanese	43,058	7,295	25,786	9,977
Syrian	36,532	5,128	12,029	9,375
Dalmatian	20,233	9,516	8,846	1,871
Spanish	13,024	6,935	5,004	1,085
Irish	11,937	2,102	4,231	5,604
Armenian	11,766	7,417	2,782	1,567
Turkish	11,634	4,903	5,786	945
African	11,023	6,038	3,419	1,566
French	10,921	6,452	3,516	953
English	5,331	1,508	2,336	1,487
Dutch	3,860	1,134	1,510	1,216
Scandinavian	3,642	502	1,540	1,600
East Indian	3,021	1,248	1,669	104
Finnish	2,858	363	1,205	1,290
Korean	2,825	52	1,965	808
Cuban	2,562	340	1,371	851
Chinese	2,350	934	539	877
Bohemian	1,750	492	771	487
Scotch	1,260	473	593	194
Spanish-American	648	119	159	370
West Indian	424	137	159	128
Welsh	415	80	175	160
Pacific Islanders	85	1	13	71
Other peoples[1]	11,232	8,107	2,877	248
Total	3,116,182	1,152,491	1,220,404	743,287

[1] Than those named in this list.

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No record is available of the number who barely knew their letters or could read only with difficulty. In general, percentage of immigrant illiteracy is less than half the percentage of illiteracy as reported in census statistics of countries from which immigrants come. Roumania, for instance, issued in 1910 a detailed statistical report upon decrease of illiteracy sequent to the installation of a Roumanian public-school system in 1900. Although there was a 10 per cent reduction in percentage of illiterates during the decade, the illiteracy was still 65 per cent for all over 14. Among Roumanians who come to this country percentage of illiteracy is much lower, averaging 34 per cent, so that it is proper to assume that the better educated are the ones who emigrate. On the other hand, in addition to the wholly illiterate, of whom 44,817 from this one nation alone have been recorded in 15 years, many come who are nearly illiterate, who read and write with difficulty, but who are not technically recorded as illiterates.

This would seem to be equally true of immigrants from most of eastern and southern Europe and from Asia. Thus another quarter of the whole number of adult immigrants are nearly illiterate; so that at least one-half of the immigrants admitted to the United States are either wholly or nearly illiterate. This has been true only of the last 12 years, since the character of immigration has largely altered. Among most of the Mediterranean and Slav peoples and Asiatics, the proportion is even greater, because the percentage of complete illiteracy is higher.

It is important to realize that the problem of the wholly illiterate adult is but a small part of the educational problem which confronts the nation, and which is increasing rapidly in importance, because so little is being done to meet it adequately. The number of illiterates of foreign birth increases nearly as fast as the combined numbers of native white illiterates and Negro illiterates diminish.

The number of foreign-born illiterates admitted since 1899 (3,116,182) is 57.7 per cent of the total number of illiterates in the United States in 1910 (5,516,163). It is one-third more than all the Negro illiterates in the United States in 1910 (2,226,731) and double the number of white illiterates in 1910 (1,534,272).

In 1910 there were 1,650,361 foreign-born illiterates in the United States, or 886,761 more than in 1900.

During the five years since the 1910 census 1,152,491 illiterate immigrants have been admitted—a net increase of approximately 810,740 since 1909, taking into consideration the number of illiterate emigrants who left the country during the same period of time. This, added to 1,650,361 in 1910, would make the total number of foreign-born illiterates in the United States on June 30, 1914, ap-

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proximately 2,461,101,[1] or more than the combined population of St. Louis, Boston, Cleveland, Baltimore, Pittsburgh, and Buffalo.

Until 1910 native white illiterates outnumbered foreign-born illiterates. The number of native white illiterates has been decreasing, while the foreign-born have been more rapidly increasing; the statistical curves (Chart 5) crossed in 1910.

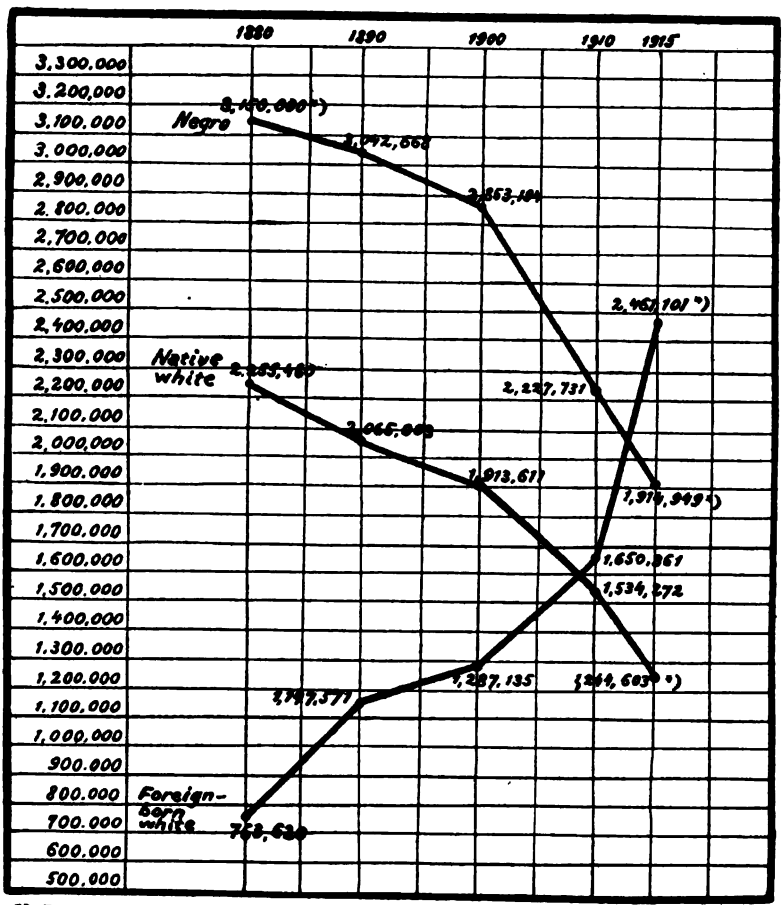

CHART 5.—Illiteracy curves, 1880–1915. Native whites, foreign-born, Negroes.

From 1880 to 1910 the *increase* in number of foreign-born illiterates was 886,741, whereas the *decrease* in number of native white illiterates was 721,188, and of Negro illiterates, 922,269. The increase

[1] From 1910 to 1914, inclusive, the *net* immigration was 3,639,458, viz: 817,619 in 1910; 512,085 in 1911; 504,910 in 1912; 889,702 in 1913; and 915,142 in 1914. During this period the ratio of persons over 14 (4,516,876) to the total (5,174,701) was 87.29 per cent. This percentage of the net immigration is 3,176,882. As the percentage of illiteracy for this period is 25.52, the number of illiterates would be approximately 810,740, or only slightly less for the last 5 years than for the preceding 10 years. This conservative estimate is probably an understatement of fact.

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in number of foreign-born illiterates by decades was as follows: 383,951 in 1880–1890; 130,564 in 1890–1900; 363,226 in 1900–1910; total, 886,741.

The increase of foreign-born illiterates since the last census, although official statistics are not in existence, is probably nearly equal to the whole increase for the preceding 30 years, owing to the large increase since 1909 in immigration from southern and eastern Europe. This increase for the five-year period may be estimated at 810,740, the net immigration being 3,639,458.

Since 1910 it is probable that the rate of decrease of illiteracy among native whites and among Negroes has not been less than in the decade from 1900 to 1910; it may have been greater, owing to (*a*) increased mortality among older illiterates, (*b*) better school facilities for children, (*c*) increased efforts in counteracting adult illiteracy. Therefore in Chart 5 the decrease from 1910 to 1915 is indicated at the rate for the preceding decade.

CLASSIFICATION BY NATIONALITY.

Prior to 1899 immigrant illiterates were classified according to country of origin. Since that year classification has been by race or nationality. Thus it is impossible to make comparative statistical studies of illiteracy among immigrants except for years before 1899 or for years since that date.

The terms Celtic, Teutonic, Iberic, and the like have been used customarily to describe peoples. The present value of these terms is impaired because they are rapidly becoming vague as far as European nationalities are concerned. In recent years easy and cheap travel from land to land, wider distribution of wealth, and decrease in oppressive class restrictions have allowed more people to travel and settle wherever conditions favor earning a livelihood. Intermarriage, also, between individuals of very different nationalities has become frequent and has helped to obliterate such distinctions along classical lines, serving to modify even such pronounced anatomical characteristics as shape of skull and color of hair and eyes. If a German man of Teutonic type marries a Balkan woman of Slav type, one child may inherit the long skull and blue eyes from the father; another child the square skull and dark eyes and hair from the mother; while a third may blend the characteristics of each, with the result that offspring of the same parents may present characteristics of entirely different nationalities.

Therefore classification by language, customs, and educational opportunity is of more value for the study of immigrant illiteracy; these factors mainly determine it. For these and other reasons, which might well be noted in greater detail, comparison is of more

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value when possible between nationalities not closely allied by near geographical relationship, intermarriage, and similarity of customs, language, and educational opportunity.

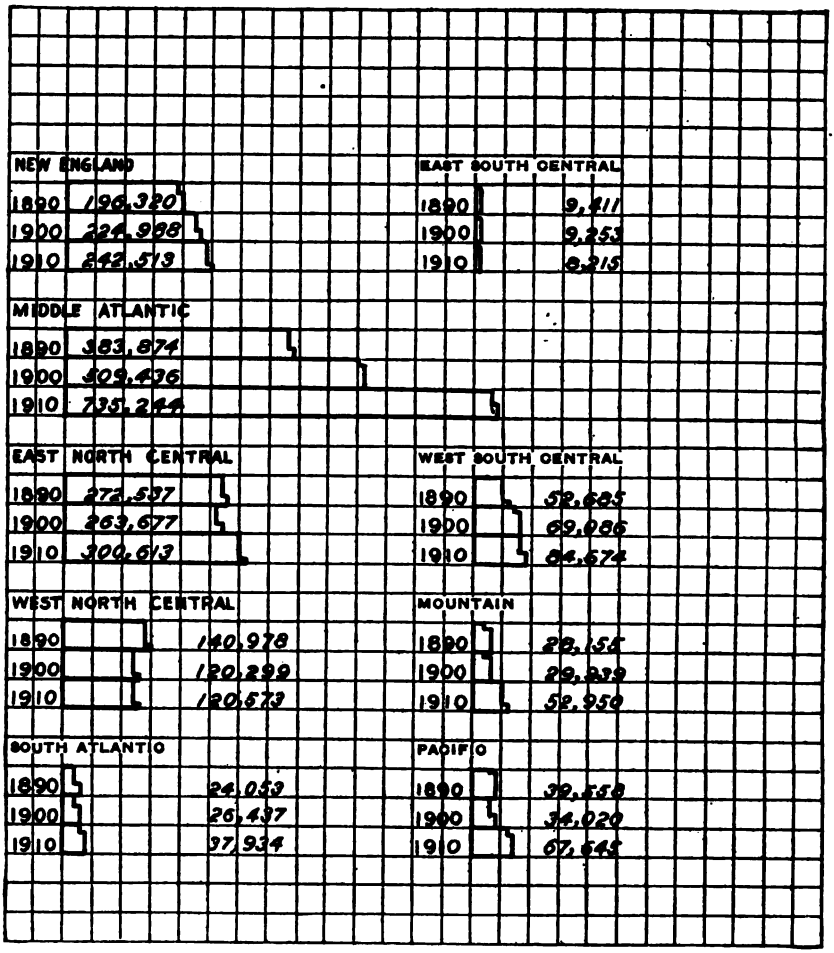

CHART 6.—Foreign-born illiterates in the population 10 years of age and over, by geographical divisions, 1890, 1900, and 1910.

The European peoples have therefore been considered under the following headings for convenience of appreciative comparison:

Northern Europe: Finland, Norway, Sweden, Denmark.
British Isles: England, Ireland, Scotland, Wales.
Western Europe: Belgium, Holland, France, Germany, northern Italy, and Switzerland.
Eastern Europe: Hebrews and—
Non-Slav—Hungary, Lettish and Lithuanian Provinces, Roumania.
Slav—Bohemia, Bulgaria and Croatian, Dalmatian, Polish, Ruthenian, and Slovenian Provinces, and Russia.
Southern Europe: Greece, southern Italy, Portugal, and Spain.

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Asiatic: Armenia, China, East Indies, Japan, Syria, Turkey.
Not classified: Africa (Negro), Cuba, Korea, Mexico, Pacific islands, Spanish America, other countries.

The last two groups include those countries which can not be classified as European. They send comparatively few emigrants to this country. Immigrant illiteracy is caused mainly by immigration from European countries, and to grasp its characteristics may profitably be considered in the divisions as noted. Asiatic immigration from the Far East is not increasing, but the highly illiterate countries of western Asia are rapidly increasing their emigration to the United States, though as yet the numbers are not large.

ILLITERATE IMMIGRANTS BY NATIONALITIES IN THE THREE PERIODS 1900–1904, 1905–1909, 1910–1914.

From 1900 to 1914, inclusive, the total immigration over 14 years of age was 11,726,606, of whom 3,116,182, or 26.55 per cent, were illiterate.

During the five-year period, 1900–1904, the total immigration over 14 years of age was 2,852,317, of whom 743,287, or 26.83 per cent, were illiterate.

From 1905–1909 the immigration nearly doubled, to 4,357,413, with 1,220,404, or 28.01 per cent, illiterate.

From 1910–1914 there was a still further increase to 4,516,876, but illiterates decreased slightly to 1,152,491, or 25.52 per cent.

The number of immigrants over 14 years of age, the number of illiterates, and percentages of illiteracy from 1900 to 1914, inclusive, contributed by different regions, are as follows:

TABLE 7.—*Immigrants over 14 years of age and illiterates from different regions, 1900–1914*

Regions and per cent of illiterates to number of immigrants by regions.	Immigrants over 14 years of age.	Illiterate.	Per cent of illiterate to total illiterate.
Northwestern Europe (3.6 per cent)	3,634,658	132,069	4.1
Eastern Europe (30.9 per cent)	4,674,144	1,446,841	46.4
Southern Europe (41.1 per cent)	2,834,601	1,366,233	43.9
Asiatic (29.1 per cent)	338,900	98,361	3.2
Not classified (21.5 per cent)	244,303	72,678	2.4
Total	11,726,606	3,116,182	100.0

Comparing the third period with the second, immigration is greater, but the number of illiterates is somewhat smaller. Detailed study of the record for each nation for each year shows that with most nationalities the number of illiterates is rapidly increasing, even though the percentage of illiteracy is steadily decreasing.

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Immigrants are apt to be aware that they will be questioned with regard to reading and writing, and even this fact may well serve to contribute to efforts toward literacy. Any further requirements after admission would doubtless be an additional encouragement to elementary instruction abroad and tend to forward interest in schools and teaching in the more backward home countries, and so be in a measure of some assistance in promoting a higher world civilization, as well as in giving the United States a more intelligent class of immigrants.

TABLE 8.—*Immigration by nationalities, from 1900 to 1914, inclusive.*

Nationalities.	Total immigration.	Number over 14 years of age.	Number of illiterates.	Per cent of illiterates.
African	61,779	55,806	11,023	19.9
Armenian	51,276	46,669	11,766	25.2
Bohemian and Moravian	136,344	109,067	1,750	1.6
Bulgarian, Servian, and Montenegrin	142,347	138,516	52,562	37.9
Chinese	28,243	26,595	2,350	8.8
Croatian and Slovenian	450,042	425,291	141,797	33.3
Cuban	56,544	47,023	2,562	5.4
Dalmatian, Bosnian, and Herzegovinian	49,070	47,582	20,233	42.5
Dutch and Flemish	137,668	108,819	3,860	3.5
East Indian	6,813	6,737	3,021	44.7
English	612,117	517,163	5,331	1.1
Finnish	187,658	170,693	2,858	1.7
French	188,837	157,229	10,921	7.0
German	1,020,293	844,868	45,782	5.3
Greek	367,679	354,271	87,496	24.6
Hebrew	1,448,226	1,095,140	278,375	25.4
Irish	552,468	520,320	11,937	2.3
Italian (northern)	503,668	456,811	46,063	10.5
Italian (southern)	2,624,987	2,314,313	1,208,703	52.4
Japanese	173,324	169,295	43,058	25.4
Korean	8,025	7,470	2,825	37.5
Lithuanian	245,736	225,999	121,902	53.9
Magyar	451,194	401,856	44,811	11.1
Mexican	106,579	81,656	43,879	53.7
Pacific island	370	347	85	24.5
Polish	1,374,229	1,240,685	451,406	36.3
Portuguese	110,886	87,656	57,010	65.1
Roumanian	133,769	128,832	44,817	34.8
Russian	219,508	207,793	78,133	37.6
Ruthenian	252,979	239,343	116,935	48.9
Scandinavian	715,307	648,436	3,642	.6
Scotch	221,298	185,939	1,260	.7
Slovak	461,438	414,070	94,030	22.7
Spanish	87,299	78,361	13,024	16.6
Spanish-American	16,071	13,600	648	4.8
Syrian	82,403	70,174	26,532	52.2
Turkish	19,888	19,430	11,634	59.8
Welsh	29,258	24,380	415	1.7
West Indian	16,265	14,165	424	2.9
Other peoples	25,202	24,236	11,232	46.4
Total	13,377,087	11,726,606	3,116,182	26.55

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TABLE 9.—*Immigrants, by nationalities, in the three periods 1900–1904, 1905–1909, 1910–1914.*

Nationalities.	1900–1904		1905–1909		1910–1914	
	Number over 14 years of age.	Number illiterate.	Number over 14 years of age.	Number illiterate.	Number over 14 years of age.	Number illiterate.
African	5,707	1,566	19,511	3,419	30,588	6,038
Armenian	6,637	1,567	11,212	2,782	28,820	7,417
Bohemian	26,993	487	43,790	771	38,304	492
Bulgarian	12,927	5,661	67,838	28,179	57,751	18,722
Chinese	11,639	877	6,768	539	8,188	934
Croatian	114,757	43,742	160,279	57,791	150,255	40,264
Cuban	11,511	851	20,948	1,371	14,564	340
Dalmatian	5,981	1,871	19,792	8,846	21,809	9,516
Dutch	18,722	1,216	38,368	1,510	51,729	1,134
East Indian	427	104	3,506	1,669	2,804	1,248
English	93,044	1,487	200,393	2,336	223,726	1,508
Finnish	58,406	1,290	59,498	1,205	52,789	363
French	25,386	953	54,046	3,516	77,797	6,452
German	214,727	9,900	330,510	19,538	299,631	16,344
Greek	41,437	10,705	126,995	34,875	185,839	41,916
Hebrew	273,281	67,669	442,686	121,461	379,173	89,245
Irish	159,733	5,604	190,206	4,231	170,381	2,102
Italian (northern)	128,511	17,214	171,107	18,725	157,193	10,124
Italian (southern)	620,617	334,482	843,885	458,415	849,811	415,806
Japanese	65,335	9,977	74,796	25,786	29,164	7,295
Korean	2,439	808	4,781	1,965	250	52
Lithuanian	53,062	25,245	81,068	48,736	91,969	48,011
Magyar	93,550	11,191	184,772	20,937	123,534	12,683
Mexican	1,970	384	16,932	10,458	62,754	33,037
Pacific island	221	71	40	13	86	1
Polish	279,292	97,807	438,350	174,241	522,993	179,358
Portuguese	21,425	14,633	26,755	18,480	39,476	23,897
Roumanian	12,055	3,289	54,879	20,008	61,898	21,520
Russian	9,527	2,838	50,268	20,925	147,998	54,370
Ruthenian	33,304	17,529	79,346	44,188	126,693	55,218
Scandinavian	243,324	1,600	218,377	1,540	186,735	502
Scotch	20,038	194	73,540	593	92,361	473
Slovak	143,505	38,164	155,155	35,166	115,410	20,700
Spanish	11,342	1,065	28,688	5,004	38,331	6,935
Spanish-American	2,935	370	5,296	159	5,369	119
Syrian	17,358	9,375	22,128	12,029	30,688	5,128
Turkish	2,330	945	9,052	5,786	8,048	4,903
Welsh	4,250	160	9,932	175	10,198	80
West Indian	3,272	128	5,638	159	5,255	137
Other peoples	1,340	248	6,282	2,877	16,614	8,107
Total	2,852,317	743,287	4,357,413	1,220,404	4,516,876	1,152,491

DISTRIBUTION OF FOREIGN-BORN ILLITERATES.

In 1910, of the total number (1,650,361) of illiterate foreigners, 1,022,537, or 62 per cent, were huddled in cities of the east North Central, Middle Atlantic, and New England States, the chief manufacturing centers, as contrasted with 255 813, or 15.5 per cent, in the rural districts of this section.

Only 149,934, or 9 per cent, of illiterate foreigners, were found in all the remaining urban communities of the rest of the United States, and but 221,813, or 13.5 per cent, in the corresponding rural districts.

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TABLE 10.—*Distribution of foreign-born illiterates in urban and rural population, 1910.*

Sections.	Urban.		Rural.		Total illiterates.
	Illiterates.	Per cent.	Illiterates.	Per cent.	
New England	222,030	62.0	20,483	15.5	242,513
Middle Atlantic	582,736		152,488		735,244
East North Central	217,771		82,842		300,613
West North Central	52,693	3.2	67,880	4.1	120,573
South Atlantic	21,511	3.0	16,423	4.9	37,934
East South Central	5,163		3,052		8,215
West South Central	23,415		61,259		84,674
Mountain	16,274	2.8	36,676	4.5	52,950
Pacific	30,878		36,767		67,645
Total	1,172,491	71.0	477,870	29.0	1,650,361

MALE AND FEMALE ILLITERATES.

Male immigrants outnumber female immigrants, and in the foreign-born population, of whom such large numbers are illiterate, males outnumber females by 129.2 to 100. The ratio of foreign-born illiterate males to foreign-born illiterate females is 118 to 139.

ILLITERATE FOREIGN-BORN MALES OF VOTING AGE.

Among 1,406,364 white illiterate males of voting age in 1910, 788,631 were foreign-born, or over one-half (56.7 per cent). Ten years previously among 1,249,897 the foreign-born were 562,316, or 44.9 per cent, an increase of 143,315, whereas among native white males of voting age the number of illiterates decreased 61,564 and among Negro males over 21 the decrease of illiterates was 157,485.

LITERATE AND ILLITERATE COUNTRIES.

In the countries of northwestern Europe there are few illiterates comparatively, and no special census returns are made concerning them. Schools are general and good; schooling is compulsory.

Twenty-five years ago 56.5 per cent of all immigrants to the United States came from these countries. In 1890, 73.9 per cent of all the foreign-born in this country were natives of Germany, Great Britain, Norway, Sweden, and Denmark; and a few thousand came annually from Belgium, France, and Switzerland. In 1910 the percentage had fallen to 46.8 per cent, the remainder coming from southern and eastern Europe and the Orient.

In 1880 in the United States there were 7,165,646 persons who had come from these more literate lands of northwestern Europe, and only 230,742 were from southern and eastern Europe. In 1910 the number from literate countries had decreased to 6,740,400, and the number from countries where illiteracy prevails—i. e., southern and eastern Europe—had increased to 5,048,583.

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TABLE 11.—*Ratio of illiterate immigrants to whole number of immigrants over 14 years of age, by nationalities, 1900 to 1914, inclusive.*

	Per cent.		Per cent.
1. Portuguese	65.1	21. Pacific islanders	24.5
2. Turkish	59.8	22. Slovak	22.7
3. Mexican	53.7	23. African	19.8
4. Lithuanian	53.9	24. Spanish	16.6
5. Italian (southern)	52.4	25. Magyar	11.1
6. Syrian	52.2	26. Italian (northern)	10.5
7. Ruthenian	48.9	27. Chinese	8.8
8. Other peoples [1]	46.4	28. French	7.0
9. East Indian	44.7	29. Cuban	5.4
10. Dalmatian, Bosnian, and Herzogovinian	42.5	30. German	5.3
11. Bulgarian, Serbian, and Montenegrin	37.9	31. Spanish-American	4.8
12. Russian	37.6	32. Dutch and Flemish	3.5
13. Korean	37.5	33. West Indian	2.9
14. Polish	36.3	34. Irish	2.3
15. Roumanian	34.8	35. Welsh	1.7
16. Croatian and Slovenian	33.3	36. Finnish	1.7
17. Hebrew	25.4	37. Bohemian and Moravian	1.6
18. Japanese	25.4	38. English	1.1
19. Armenian	25.2	39. Scotch	.7
20. Greek	24.6	40. Scandinavian	.6

[1] Than those named in this list.

NORTHWESTERN EUROPE.

Schooling, which may be compulsory either by custom or law or by both, determines degree of illiteracy. Throughout northwestern Europe compulsory schooling is general. Immigrants show a low percentage of illiteracy, varying from one-half of 1 per cent among Scandinavians to 10 per cent among northern Italians. Among all these nationalities illiteracy is steadily diminishing, and during the past few years is markedly less than 10 years ago and earlier.

EASTERN EUROPE.

Among Hebrews coming in increasing numbers from eastern Europe, one-fourth are illiterates.

Magyars or Hungarians, who in racial type and language are relate to the highly literate Finnish people and who are in close social, business, and educational affiliation with the literate countries of western Europe, have a low percentage of illiteracy, 11.1 per cent. The Magyars are not Slavs.

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TABLE 12.—*Immigrants over 14 years of age and number of illiterates, from certain geographical divisions.*

Geographical divisions.	Period.	Immigrants over 14 years of age.	Number of illiterates.
Northern Europe	1900–1904	301,730	2,890
(Includes Norway, Sweden, Denmark, Finland.)	1905–1909	277,875	2,745
	1910–1914	239,524	865
		819,129	6,500
British Isles	1900–1904	277,065	7,445
	1905–1909	474,071	7,335
	1910–1914	496,666	4,163
		1,247,802	18,943
Western Europe	1900–1904	387,346	29,283
(Includes Holland, Belgium, Germany, France, northern Italy.)	1905–1909	594,031	43,289
	1910–1914	586,350	34,054
		1,567,727	106,626
Eastern Europe (includes Austria-Hungary, the Balkans, Russia, and Hebrews from Germany):			
Hebrew	1900–1904	273,281	67,669
	1905–1909	442,686	121,461
	1910–1914	379,173	89,245
		1,095,140	278,375
Non-Slav	1900–1904	158,667	39,725
	1905–1909	320,719	89,681
	1910–1914	277,301	82,214
		756,687	211,620
Slav	1900–1904	626,286	208,099
	1905–1909	1,014,818	370,107
	1910–1914	1,181,213	378,640
		2,822,317	956,846
Southern Europe	1900–1904	694,821	360,905
(Includes Greece, southern Italy, Portugal, Spain.)	1905–1909	1,026,323	516,774
	1910–1914	1,113,457	488,554
		2,834,601	1,366,233
Asiatic	1900–1904	103,726	22,845
(Includes Armenia, Syria, Turkey, China, Japan, East Indies.)	1905–1909	127,462	48,591
	1910–1914	107,712	26,925
		338,900	98,361
Not classified	1900–1904	29,395	4,426
(Includes Africa (Negro), Cuba, Korea, Mexico, Pacific islands, Spanish America, West Indies, other peoples.)	1905–1909	79,428	20,421
	1910–1914	135,480	47,831
		244,303	72,678

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TABLE 13.—*Immigrants over 14 years of age and number of illiterates, by nationalities, from certain geographical divisions.*

	1900–1904		1905–1909		1910–1914	
	Immigrants over 14 years of age.	Illiterates.	Immigrants over 14 years of age.	Illiterates.	Immigrants over 14 years of age.	Illiterates.
Northern Europe:						
Finnish	58,406	1,290	59,498	1,205	52,789	363
Scandinavian	243,324	1,600	218,377	1,540	186,735	502
	301,730	2,890	277,875	2,745	239,524	865
British Isles:						
English	93,044	1,487	200,393	2,336	223,726	1,508
Irish	159,733	5,604	190,206	4,231	170,381	2,102
Scotch	20,038	194	73,540	593	92,361	473
Welsh	4,250	160	9,932	175	10,198	80
	277,065	7,445	474,071	7,335	496,666	4,163
Western Europe:						
Dutch	18,722	1,216	38,368	1,510	51,729	1,134
French	25,386	953	54,046	3,516	77,797	6,452
German	214,727	9,900	330,510	19,538	299,631	16,344
Italian (northern)	128,511	17,214	171,107	18,725	157,193	10,124
	387,346	29,283	594,031	43,289	586,350	34,054
Eastern Europe:						
Hebrew	273,281	67,669	442,686	121,461	379,173	89,245
Non-Slav—						
Magyar	93,550	11,191	184,772	20,937	123,534	12,683
Lithuanian	53,062	25,245	81,068	48,736	91,869	48,011
Roumanian	12,055	3,289	54,879	20,008	61,898	21,520
	158,667	39,725	320,719	89,681	277,301	82,214
Slav—						
Bohemian	26,993	487	43,790	771	38,304	492
Bulgarian	12,927	5,661	67,838	28,179	57,751	18,722
Croatian	114,757	43,742	160,279	57,791	150,255	40,264
Dalmatian	5,981	1,871	19,792	8,846	21,809	9,516
Polish	279,292	97,807	438,350	174,241	522,993	179,358
Russian	9,527	2,838	50,268	20,925	147,998	54,370
Ruthenian	33,304	17,529	79,346	44,188	126,693	55,218
Slovak	143,505	38,164	155,155	35,166	115,410	20,700
	626,286	208,099	1,014,818	370,107	1,181,213	378,640
Southern Europe:						
Greek	41,437	10,705	126,995	34,875	185,839	41,916
Italian (southern)	620,617	334,482	843,885	458,415	849,811	415,806
Portuguese	21,425	14,633	26,755	18,480	39,476	23,897
Spanish	11,342	1,085	28,688	5,004	38,331	6,935
	694,821	360,905	1,026,323	516,774	1,113,457	488,554
Asiatic:						
Armenian	6,637	1,567	11,212	2,782	28,820	7,417
Chinese	11,639	877	6,768	539	8,188	934
East Indian	427	104	3,506	1,669	2,804	1,248
Japanese	65,335	9,977	74,796	25,786	29,164	7,295
Syrian	17,358	9,375	22,128	12,029	30,688	5,128
Turkish	2,330	945	9,052	5,786	8,048	4,903
	103,726	22,845	127,462	48,591	107,712	26,925
Not classified:						
African	5,707	1,566	19,511	3,419	30,588	6,038
Cuban	11,511	851	20,948	1,371	14,564	340
Korean	2,439	808	4,781	1,965	250	52
Mexican	1,970	384	16,932	10,458	62,754	33,037
Pacific islander	221	71	40	13	86	1
Spanish-American	2,935	370	5,296	159	5,369	119
West Indian	3,272	128	5,638	159	5,255	137
Other peoples	1,340	248	6,282	2,877	16,614	8,107
	29,395	4,426	79,428	20,421	135,480	47,831

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SLAVS AND NONSLAVS.

There is need for care in making unfounded generalizations with regard to immigrant peoples and in attempting to classify immigrant illiteracy.

That the Slavic type is not a determining factor in illiteracy is indicated by the fact that of the three non-Slav races of eastern Europe the Magyars or Hungarians (11.1 per cent) are a literate people. The Roumanian immigrants, also non-Slavs, have a percentage of illiteracy of 34.8; while the Lithuanians, the third non-Slav race, are among the most illiterate (53.4 per cent) who come to the United States. Thus some non-Slavs of eastern Europe may be far more illiterate than some Slavs.

To illustrate still further the futility of classifying illiterate immigrants along traditional lines and of regarding Slavs as generally illiterate, it is necessary only to cite the Bohemians and Moravians, who are Slavs and who are among the most highly literate races (1.6 per cent) admitted to the United States.

It is worth noting however, that owing to the almost universal lack of public schooling, immigrant illiteracy from eastern Europe, including most Slav countries, in general averages over 30 per cent.

SOUTHERN EUROPE.

Southern Europe is most illiterate. The bulk of illiterate immigrants are from southern Italy, and their percentage of illiteracy is 52.3 per cent. Greece has a percentage of 24.6, but contributes only 2.15 per cent of all adults, in comparison with nearly 20 per cent coming from southern Italy. The illiteracy of Portuguese immigrants is highest of all, but Portugal sends less than 1 per cent of all immigrants.

In these southern or Mediterranean lands, schooling of any kind is uncommon or of low grade, the better schools being open only to children of the privileged in rank or wealth. Therefore among Mediterranean immigrants is found what is the inevitable result of lack of schooling everywhere—disease and mental defectiveness—with a type of immigrant who easily may become dependent or a public charge at an early age and be an uneconomic contribution to national integrity and sturdy prosperity.

III. THE WORKERS' CLASS.

HANDICAPPED TOILERS.

Few persons realize how vast are the numbers of ill-equipped non-English-speaking aliens who have been poured into American industry during the past few years. Since 1908 there have been 4,406,413

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from eastern and southern Europe alone; of this number over 1,300,000 were unable to read or write in any language. In 1910, in the three States of New York, New Jersey, and Pennsylvania there were 873,812 illiterates, but of these 767,587 were either aliens or were born of foreign parents.

Wage worth is determined mainly by intelligence, and lack of schooling affects unfavorably employment, retention, advancement, and the wage attainable. If the worker has been taught little or nothing, when he comes into competition with those who know more and can do more he is outclassed and is worth less. No minimum-wage law reaches the essential difficulties of low earning power. The more illiterate and untrained the worker, the less his ability to realize the reasons and remove the causes of his own lack of employment or low and stationary wage.

The illiterate alien especially is handicapped from the start by ignorance of the English language and by consequent distrust and suspicion increased through lack of knowledge of American ways, industrial operation, and work requirements. This contributes to low wage earning and so gives rise to discontent. For these reasons it is becoming imperative for educators, for industrial managers, and for labor organizations to concern themselves more directly with educational opportunities for adult workers.

It is possible for the public school to establish classes in the workshop itself and so aid workers to gain better understanding of American ideals, standards, customs, and methods, and to become more self-reliant, capable, and responsible. Exploitation of labor is favored by the existence of widespread illiteracy among alien workers, inability to cooperate, and their own helplessness in consequence. Problems of industrial unrest are problems of education.

ILLITERACY AND THE SWEATSHOP.

Modern industrial management realizes that the sweatshop is an industrial cancer which must be extirpated. There exist numerous lines of manufacture in which an ambitious, conscienceless, and forceful man can start with little capital, can utilize whatever he has, convert it into cash, and begin manufacturing. Using a dirty tenement and exploiting the labor of ignorant girls, non-English-speaking men, and untaught children, he demoralizes trade and ultimately harms the very workers whose immediate need for wage earning he has met. This happens not only in cities, but in country towns and villages.

At the other end of the industrial scale are certain established firms whose success depends not on exploitation of cheap labor, but on good management. The education of the industrial manager is proceeding rapidly, because he is being compelled by closer study of

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waste and cost to give more attention to the human mechanics of production as contrasted with machines and material. He is perceiving more clearly the economic disadvantage which results from ignorance, disease, stupidity, and lack of dexterity among workers, and especially from his own lack of recognition of the opportunities and responsibilities of management.

EDUCATION AND INDUSTRIAL MANAGEMENT.

If, in the past, firms of standing have followed a shortsighted policy of disregarding the relation of business to public advantage and social gain in general, if wage expense has been confused with labor cost, that time is rapidly passing. The best type of industrial management to-day is recognizing the value of better schooling and is favoring the establishment of continuation classes, vocational schools, and prevocational training, and is insistent on providing means of instruction in the factory, the mercantile establishment, and the construction camp to meet the elementary needs of all, young or old, who for economic or other reasons have been obliged either to be deprived of school training or to leave school at an early age. Many large business firms have been impelled to introduce private classes and schools among their workers.

These new requirements in industrial management mark the inception of more intimate future relations between business managers, workers, and teachers. They imply recognition of the wage value of schooling and of the loss incurred through employment of ignorant labor even in simple mechanical and repetitive operations, because of the waste inherent in such labor and the risk to life and limb, material, and property in its employment.

If this conception of modern employment be well based, it requires industry and the public school to provide for present as well as for prospective wage earners such training as will result in a living wage worth.

Conventional school methods reach but few of the five and a half million illiterates. The workers' class was devised and put into operation primarily to give employed adult illiterates a chance to learn to read and write, but is applicable to other forms of industrial education of a more complex type. It is adapted to factories and can be used to advantage by workers in many industries and employments, by mine workers, farm hands, and domestic help. It has been introduced among office workers and in department stores. It is in successful operation on shipboard. A class has been conducted among non-English-speaking illiterate hotel workers.

The principle of the workers' class is that the public-school system shall furnish a teacher and school equipment; the industrial estab-

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lishment shall provide a room in the place of employment and time *during the day* for instruction without loss of wage; and the workers themselves shall contribute their own effort during daylight hours under definite personal responsibility.

In the workers' class it is possible for any person of ordinary intelligence who has never learned to read or write in any language, and who can speak no English, to acquire a good working knowledge of 600 English words, ease in reading common prose, legible penmanship, and knowledge of simple arithmetic. The time needed is 60 hours, or 1 hour a day for 12 weeks, 5 days a week.

NIGHT SCHOOLS FOR WORKERS.

The natural query is, Can not night schools supply adequate instruction for adult illiterates?

In New York City in 1910 there were 261,058 illiterates over 14 years of age. The total number of foreign-born pupils who attended even *one* night or more was but 52,335, and only a minor portion of these were illiterate.

The night school in cities is largely impracticable among employees of factories. The problem in large cities is complicated. It differs from the problem in the mountains and on the farms, because workers can not go to evening schools. They are fatigued by their labor, not so much muscularly as nervously. Their work is more exacting, more intense, and more nervously exhausting. Although the hours are not so long as on the farm, eight or nine hours at most as a rule, the work is highly concentrated; it is often on machine operative processes, involving continuous application, in bad air, and poorly lighted. Conditions of living are crowded and insanitary, and sleep is not restful. Workers can not get from an evening school what they should.

Night schools are most desirable and give opportunities to some who can not spend the day hours in study. They appeal to men who are permanently in business and know that an education will advance their business interests; they attract the studious-minded, not the illiterate. The night school fails to reach large numbers of workers—and this is notably true of women in industry—who can be reached best by workers' cooperative day classes.

EXPERIMENTAL CLASS FOR ADULT WORKERS.

The workers' class begun in New York City in the spring of 1913 was an initial experiment in the effort to meet the school needs of adult industrial workers to the end that boards of education might assign thoroughly capable and expert public-school teachers to give instruction in industrial establishments to adults or those beyond

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school age. In other words, where employers in any industry will allow workers time during the day without loss of wage and a place in the works for instruction, school authorities should provide experienced and thoroughly capable instructors—not young or substitute teachers—and meet the expense of instruction. In other cities employers are sending children under 16 back to school for a few hours a week without reduction of pay. In this experiment in New York City the pupils were over 16, as few girls under 16 are employed in the undermuslin industry.

It was also an effort to provide elementary schooling, not trade training, because trade training is not needed in industries where all work is done through certain operative processes easily learned within a few days in the factory itself and requiring only that expertness which must be acquired by working daily until "practice makes perfect."

This type of public school instruction, as adopted, was planned to meet the needs of those adults whose general intelligence had been repressed and starved through lack of schooling.

It is of prime importance that in instituting workers' classes for adults in industrial establishments stress should be laid on discovering and employing as teachers only those who are industrially minded and whose personality and teaching equipment are such as to grip the interest of undeveloped adult pupils whose minds are not plastic, whose attention is easily lost, and who are quickly wearied mentally. Moreover, the teacher must be a person of judgment, adaptability and poise—and nonpartisan, both socially and racially. The least bias of thought or feeling will find expression in words or acts and will militate seriously against success in an atmosphere of growing industrial democracy such as is characteristic of establishments sufficiently advanced to install a workers' class and cooperate with the public-school system.

Furthermore, the classroom should be in the establishment itself, preferably in a corner of a quiet workroom, in order that it may be associated in the minds of all with the industry itself and be permeated with the industrial atmosphere. Only by making the teaching a recognized part of the day's industrial routine can it gain the confidence and retain the interest of workers who contribute their effort and of managers who pay the cost.

It became clear from close study given to this class how hard it is to predetermine correctly proper modes of study for and modes of conducting workers' classes; wise methods can be selected only by experiment, analysis, and adaptation. Since similar cooperative classes are now being formed in other industries, as well as in mercantile establishments and construction camps, it is well to recognize possible pitfalls and errors.

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I. At first it seemed reasonable to suppose that girls who had never been taught to read and write could be assigned to one group; that those who had been to school a few years in foreign countries could form another group; that those who had been to school in this country and knew a little English could form a third. It was soon found that the amount of prior schooling could not be taken as a basis for grouping. All grouping had to be determined by the degree of individual alertness, interest, application, ability to concentrate, and mental flexibility.

II. An observation allied to this is that methods of instruction and teachers adequate for pupils from 14 to 16 who have just left school may be failures in dealing with workers over 16, especially those who have been out of school for several years and who have lost entirely the habit or knack of study.

III. For the first few weeks, in general, the most striking characteristic in the class was a discouraging mental rigidity and listlessness. Girls became fatigued after 15 or 20 minutes of application to their books like young children. It was apparently more wearisome to them to try to read for 10 minutes than to work intensely and interestedly at dressmaking for an hour. They seemed stupid and inattentive after a few minutes of effort with pencil or book, although evidently ambitious and desirous to learn.

IV. In learning the educational needs of girls in the undermuslin industry, light is not necessarily thrown upon all the mental requirements of workers in other industries. To avoid costly errors, the institution of similar experimental classes under like intense and expert analysis would be the cheapest and surest mode of handling this educational problem in any industry. What girls in the undermuslin line need most might be least useful to girls employed on core making in foundries or selling goods over the counter. For instance, in some optical works only high-school girls are ever employed. Illiterates are seldom employed in department stores. Some factories will not employ foreigners; some employ only foreigners. Certain establishments wish only girls fresh from grammar school and living at home; others prefer older and steadier women, dependent on their own resources. The needs of men are almost radically different from those of women. Yet workers' classes are adapted to everyone engaged in industry—skilled or unskilled, literate or illiterate, alert or dull.

V. Another impressive deduction was the need of care of health, and particularly knowledge of physical handicaps. One-third of the girls in this group, chosen at random, had eye defects which would make it impossible for them ever to earn more than a bare living wage while working on white goods. Such girls might easily make much more money as waitresses, or doing almost any work which

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does not require accurate vision. Such special handicaps are not only costly to the industry, but prevent the worker from earning a proper livelihood and are the frequent cause of the low and stationary wage. It would be to the financial advantage of every worker and every industry to know by health examinations what physical disabilities interfere with productive wage advancement in any given job. Labor organizations having the larger wage at heart should exert every effort to compel the institution of such examinations, as a matter of fair play and justice to the workers. Managers should institute such examinations, as a means of avoiding discouragement, waste, and discontent. The cloak, suit, and skirt industry, at the initiative of their own workers, have completed thorough health examinations for 4,500 men and women workers in New York City.

WORKERS' CLASS FOR ADULT ILLITERATES.

As the direct outcome and intentional sequence of the experimental class, by authorization of the school authorities, in September, 1913, Miss Lizzie E. Rector, principal of Public School No. 4, deputed Miss Florence D. Myers, who had been in charge of the experimental class, to teach 40 girls in the factory of D. E. Sicher & Co., makers of muslin undergarments, 45 West Twenty-first Street, New York City.

These girls were mainly those who had never learned to read or write in any language, and comprised all the illiterates in the factory force of 400, or about 10 per cent. The girls were assigned to two groups, one being taught from October to February, the other from February to June. The groups were divided into sections of six or seven each, and each section was taught daily for a period of 45 minutes, except on Saturdays. In this way every illiterate girl in the factory at the time received nearly individual instruction in English, reading, writing, arithmetic, American history, geography, personal hygiene, and practical information about food, fire protection, and the evolution of the undergarment. Practice was given in the writing of letters of a friendly and business nature; keeping expense accounts and budgets, and in making out workslips and reports; the girls learned the practical application in daily life of adding, subtracting, multiplying, and dividing. They were taught how to deposit money in the savings bank and how to draw it out.

Miss Myers took pains herself to sit at the various machines and get the forewomen to instruct and correct her, making note of all their phrases and afterwards using them in the early lessons in English. In teaching English, practice was given in the use of the telephone book, the city directory, and how to write telegrams. The girls learned about the mail service, how to send letters abroad, the common routes of travel in New York City, and local ordinances. They were given practical and simple rules for safety and health.

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It was obvious, as the weeks passed by, that the lessons in personal hygiene, physical culture, right breathing, and eating were taking effect. The eyes of the girls were getting brighter, the skins clearer, the minds more alert and receptive, and better taste and judgment were shown in dress From being apathetic, they became interested, eager, and willing to work hard.

In no sense would this be termed welfare or philanthropic work, inasmuch as in the records of the firm the girl students gained from 20 to 70 per cent in working efficiency, and the girls themselves not only attained new hopefulness, ambition, and courage, but increased

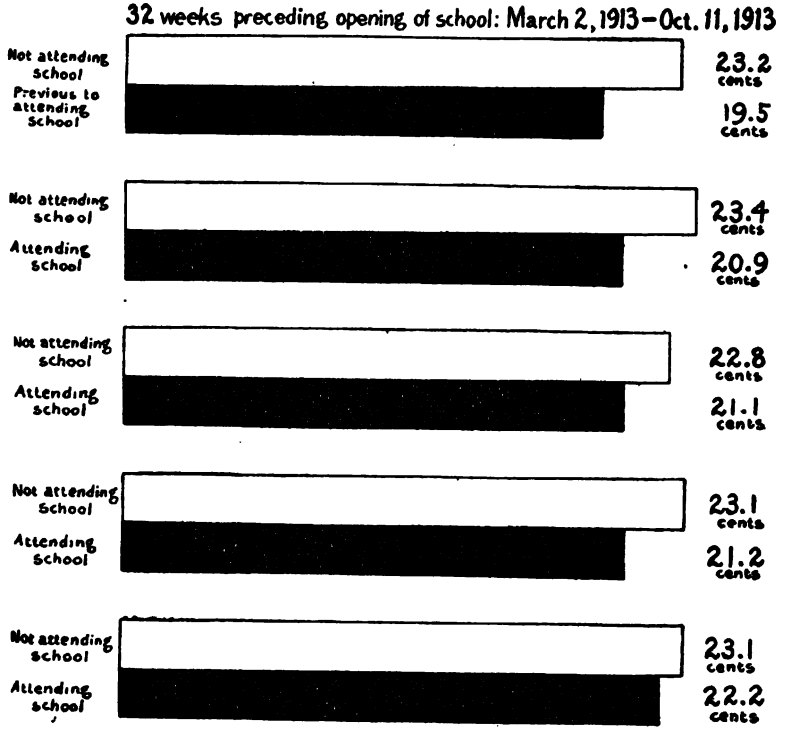

CHART 7.—Increased earnings of factory workers, D. E. Sicher & Co.

their earnings from an average of 19.5 cents per hour to 22.2 cents per hour, while the earnings of those who could not avail themselves of the class instruction remained practically unchanged.

The following account of the class was furnished by Miss Lizzie E. Rector, principal of Public School No. 4, Manhattan:

The girls who attended the school the first year were selected on a basis of illiteracy. Some had never been in a school at any time in their lives. Others had, for brief periods, attended school in remote districts of Russia, Poland, and Italy. Some, since their arrival in New York, had made an effort to gain what had been denied them at home, by going to night schools after working in the factory all day. This proved to be such a tax on their strength that most of them finally gave up the attempt.

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During the past year 40 girls have received instruction. These were divided into two classes of 16 each and one of 8. These classes were then subdivided into groups of three or four girls each, each group receiving instruction for 45 minutes daily. They were taught to read, to write, and to keep a personal expense account as a part of the course in arithmetic. As the girls were engaged in the factory on piecework, the firm paid them while attending school the amount they would earn if actually at work, so that at the end of the week they received full pay.

The results of the first year's work in the classes have been highly satisfactory to Mr. Dudley D. Sicher, through whose initiative the school was established. A careful examination of the teachers' and the factory's reports shows that the earning capacity of the girls has been increased from 10 to 40 per cent. This result is in accordance with the established educational principle that increased intelligence creates increased efficiency, and increased efficiency produces increased earning capacity.

Not only have the girls gained in knowledge and earning power, but their ambition has been aroused; they have a keen sense of the distinction between right and wrong; and they are imbued with a better spirit.

COURSE OF STUDY OF THE ILLITERATE WORKERS' CLASS.

I. English Language:
  (1) Reading.
  (2) Spelling.
  (3) Writing.
  (4) Geography.
  (5) Methods of communication—
    a. Correspondence—
      Business letters.
      Social letters.
      Post-office regulations.
    b. Telephoning.
    c. Telegraphing.

II. Hygiene:
  (1) Personal cleanliness.
  (2) Physical culture (gymnastics).
  (3) Food—choice, food value, cooking, serving.
  (4) Emergencies, treatment of injured.

III. Civics:
  (1) Systems of government—
    a. Merits of democratic government.
    b. Patriotism.
    c. Citizenship.
  (2) History—
    a. Origin of legal holidays.
    b. Lives of statesmen.

IV. Mathematics:
  (1) Four fundamental operations in arithmetic.
  (2) Tables of weights and measures.
  (3) Money; bills and currency.
  (4) Work reports.
  (5) Personal expense accounts.
  (6) Bank accounts.

V. Practical application of language:
  (1) Evolution of an undergarment—
    a. Growth of cotton plant.
    b. Manufacture—
      Spinning operation.
      Bleaching.
    c. Weaving.
    d. Shipping.
  (2) Alphabet as a guide to common things—
    a. Advertisements.
    b. Dictionary.
    c. Directory.

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At the close of the course in June, graduation exercises were held and public-school certificates of literacy were presented to each member of the class.

From time to time interested visitors, educators, and employers visited the class. It attracted attention and favorable notice in the daily press throughout the whole country, with the result that other employers have been stimulated to establish similar classes, especially in department stores for literate girls.

CLASS IN ELEMENTARY ENGLISH FOR FOREIGNERS AT BAYONNE, N. J.

As a result of the success of the class for girls in the white-goods industry, a similar class for illiterate men was installed by Mr. Arthur B. Jones, superintendent of the General Chemical Works at Bayonne, N. J. The following account is from a report rendered by Mr. Charles S. Havens to the superintendent of schools.

The class met four days per week, from 3 to 5 p. m., in the welfare building of the works, for 64 evenings during the past winter. Each pupil present attended one hour at each session. Owing to delays in getting the building and equipment ready, the class did not begin until October 26, 1914.

Attendance was voluntary and out of the men's own time. Convenient opportunity to attend was arranged for the men, and they were encouraged to do so, but no pressure was exerted upon them, and they were not paid while in the class. Suitable equipment of chairs, tables, blackboard, etc., was supplied by the company. As I had had no experience in this phase of education, I took it up with some hesitation, which rapidly gave way to enthusiasm and interest as the work progressed.

During the few weeks intervening between my appointment and the opening of the class I endeavored to prepare myself for the task which I had undertaken. After some deliberation I selected from several apparently good textbooks one which was said to have been used by others with excellent results, entitled "A First Reader for New American Citizens," by Mintz. Macmillan.

The class began with 18 men, between 20 and 50 years of age. They were all Polish, most of them could speak no English, and the few who, as I later judged, could speak or understand it a little gave no evidence of such ability at first. I did not know any Polish. One man could speak German and was very useful to me in getting acquainted and starting the work of the class.

The Polish vocabulary has practically no resemblance to English or other tongues commonly studied in this country, so far as I have discovered. A dozen random words may serve to show how "foreign" Polish looks to an English student:

for	equals	gdyz	September	equals	Wrzesien
with	equals	z	Monday	equals	Poniedzialek
if	equals	jezeli	teacher	equals	nauczyciel
up	equals	wgore	four	equals	ctzery
blue	equals	niebieeski	I am	equals	jestem
red	equals	czerwony	to come	equals	przyjsó

The men's names were so difficult to spell that often they themselves did not apparently know how to spell them, and so nearly unpronounceable to Americans that no one in the works pretended to use them. The men were known officially by check numbers and colloquially by American names. Thus, Ignatzi Krasczewski, the best scholar in the class, was officially known as "No. 149," and familiarly called Frank by his "boss."

Like pupils everywhere, they differed widely in aptness, personality, eagerness, mentality, alertness, and capacity. At first, however, it was difficult to learn much about them, and particularly to find effective means of approach to their minds.

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They seemed like adult infants, who could not understand or repeat accurately the simplest English words. A further obstacle was their attitude; they were impassive, unresponsive, not sullen, but diffident and embarassed, bashful, seemingly ashamed to display their ignorance, and also much in awe of the teacher and of the English language.

The textbook so carefully selected soon proved uninteresting and difficult. Progress with it was slow. The methods did not seem to work well. Anything in the nature of theory, even the simplest, went over their heads. They yawned.

Oral work, object lessons, concert exercises, etc., went much better, but were very fatiguing to the teacher. At my suggestion the superintendent of the works, who was at all times very kind, sympathetic, and helpful, and very eager for the success of the class and the teacher, ordered another set of books: "A New Reader for Evening Schools," adapted for foreigners. Hinds and Noble.

This book was much easier, with coarse type, and very practical and simple, and contained an appendix of several hundred common Polish and English words arranged in groups in parallel columns. The class took to this book at once and liked it very much. The Polish-English vocabulary was very serviceable and useful for a time in breaking down the diffidence of the men and in getting them to make an earnest effort to speak the English words. Some could read the Polish words fairly well; the rest could recognize and repeat them aloud; and all readily repeated the English equivalents after me with enthusiasm, and were thus encouraged to speak out and forget themselves.

Object lessons based on articles in the room, simple movements, and especially on parts of the human body, "This is my face," "This is my arm," etc., with innumerable variations and repetitions which never seemed to grow tiresome to the class, were helpful. Concert exercises in the simplest arithemetic and number work were useful in arousing a spirit of effort and mental activity. For weeks I could employ only the mplest additions, which did not require "carrying." At first subtraction was beyond them. In time many developed the ability to add and "carry," to subtract and to multiply readily by 2, 3, 4, and 5. Even to the end of the course it was difficult to get them individually to answer freely. They seemed bashful; and if they made a mistake or were slow, they were afraid of being laughed at by their mates. A few finally overcame this, but some did not.

Soon they began to read, at first only the simplest sentences.

I walk	You walk	He walks	She walks
I run	You run	I have a book	You have a book, etc.
I stand	You stand		
I sit	You sit		

Thus we labored for weeks with increasing pleasure and enthusiasm and with increasing success. The pupils seemed to think they were progressing and evidently recommended the class to their friends. For two weeks I had only 18 on the roll; the third week, 25; the fourth week, 27; the fifth week, 32. At this time, for several reasons which seemed good and cogent to me, I advised the superintendent not to encourage any more men to join the class this year.

The men work in shifts (for the plant runs day and night) and attended the class either at the end or beginning of their day's work. Occasionally they would be working at night and absent from the class for a week at a time. Those who attended at the end of a day's work were often weary in body and mind. All things considered, the attendance was good and fairly regular, and the interest and enthusiasm increasingly keen.

At first I mingled work in pronouncing, reading, writing, numbers, talking, answering questions, etc., but it was soon clear that to develop any real approach to proficiency in the short time at my disposal (less than 64 hours for any one man, which

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is equal to less than 8 days of solid work), the effort must be confined to a smaller field, chiefly to teaching the class to read aloud and to understand and answer questions, partly because this seemed the wisest plan and the quickest avenue to progress, and partly because it seemed most interesting and attractive to the class.

The attendance continued good until late in February, and the progress of the best students was very gratifying. The superintendent of the works then decided to give a modest promotion to one of the best pupils, partly on the supposition that it would serve as an encouragement and incentive. To our surprise, it offended many of the class. One man was so displeased that he "called for his time" and left the works. Many others were disaffected, and all but nine ceased attending the class. Many of these had been irregular in attendance and had made but little progress. The nine who continued were among the most regular, diligent, attentive, and apt.

The class continued about three weeks more, completing 64 nights with these nine men, who advanced rapidly, being unhindered by the slower ones. At the end of the course most of them could understand and respond to spoken English quite readily. Most of them could read the easy text of the primer very well; some, with gratifying fluency and a full and ready comprehension of the sense, could see the point of a joke or anecdote, and tell in their own words the substance of the story read. Some could write freely and legibly, nearly all could add, subtract, and multiply with considerable readiness.

These are some of the concrete results attained by this class. Other results, even more valuable and precious, though difficult to catalogue or measure were also achieved. Most of these men had their minds awakened, and their hearts and spirits stirred, and their ambition aroused, as never before. They were much different from what they were five months ago. Some of them say they daily try to read the "Merican" paper. Their "boss" states that a greater alertness and a keener intelligence is apparent in them and that they go about their work with more zest and zeal.

I believe that for the first time in their lives they realize that they may be of America as well as in it. At our last lesson the class sang "America," reading the words from the book and following the melody with me. Their manner and mien evinced to me a reverence for that noble hymn, a pride in the Americanism that they felt conscious of possessing, well worth, in my judgment, all the effort that had been made to teach them. They left me with abundant evidence of gratitude for what had been done for them, and of regret that the class was ending, and expressed the hope that the class would continue next year. The work from the teacher's point of view is hard, fatiguing, and wearing, but very pleasurable.

The results, if measured concretely in the fluency with which they read or talk, may be comparatively slight and in some cases even disappointing, but the larger results, the intellects awakened, the ambitions spurred, the possibilities put before them and made real to them, the yearning for better things, the realizing that the opportunities and privileges of America are within their reach, are, I believe, real and precious.

On better acquaintance with these men I began to realize how little apparently had ever been done for them in the past. Apparently no one, either in Europe or America, had taken a deep or genuine interest in them as persons or individuals. Most of them had had almost no schooling. Though many had been in America many years, no one had apparently ever tried to teach them to read or talk our language. Not one man was a citizen or knew how to become one, or had ever had anyone suggest it to him as far as I could learn.

Half of them were married, and most of these have two, three, or four children. They work at night, days and holidays the year round. They do hard, rough labor in all weathers for a wage of about $1.85 per day, modestly increased after years of experi-

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ence. They are hearty, cheerful, and contented, and seem to think themselves fortunate and well used. Their conditions here are far superior to those they left in Europe. They do not complain and do not seem to think they have anything to complain of, and seem very grateful for whatever is done for them. They are treated very kindly, considerately, and generously by their employers, whom they seem to like and respect and esteem very much.

Of the class, 16 were between 20 and 30 years old; 11, between 30 and 40 years old; 2, between 40 and 50 years old; and 1 was 50 years old.

The youngest ones, as a rule, took the least interest in the class work and were the poorest students. Those between 30 and 50, mostly with wives and families, were, generally speaking, most eager, earnest, and attentive, and made the most progress.

There were 64 lessons. The best student attended 63 times; 8 attended 58 or more times; 2 between 40 and 50 times; 2 between 30 and 40 times; 11 between 20 and 30 times; 9 between 10 and 20 times; and 1 attended 10 times. The average attendance for the whole course was 16.1. As several joined the class late and several abandoned it before it ended, the attendance was really better than the above would indicate.

Mr. Havens's recommendations were as follows:

1. The work was valuable to the class, and worth both to them and to our city and State much more than it cost.

2. The assistance, encouragement, enthusiasm, and cooperation of the superintendent of the plant was most valuable and helpful.

3. The work should be continued and enlarged; at least an advanced and another beginning class should be conducted at the chemical works next winter.

4. Similar classes ought to be organized in other large industrial concerns and perhaps elsewhere among the non-English-speaking residents of the city.

5. The opinion which is occasionally expressed that "little or nothing can be done to educate or Americanize adult foreigners" is not based on a knowledge of the conditions or an acquaintance with the people.

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STATISTICS OF RECENT IMMIGRANT ILLITERACY.

AFRICAN (black).

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Illiterate over 14.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	714	414	300	162	552	132	23.9	.....	.....
1901	594	299	295	120	474	180	38.0	.....	.....
1902	832	492	340	163	669	142	21.2	.....	.....
1903	2,174	1,549	625	242	1,932	627	32.4	.....	.....
1904	2,386	1,537	849	306	2,080	485	23.3	.....	.....
Total	6,700	4,291	2,409	1,993	5,707	1,566	27.5	.....	.....
1905	3,598	2,325	1,273	433	3,165	499	15.8	.....	.....
1906	3,786	2,355	1,431	346	3,440	422	12.3	.....	.....
1907	5,235	3,332	1,903	500	4,735	770	16.3	.....	.....
1908	4,626	2,839	1,787	421	4,205	839	20.0	648	191
1909	4,307	2,601	1,706	341	3,966	889	22.4	681	208
Total	21,552	13,452	8,100	2,041	19,511	3,419	17.5	1,329	399
1910	4,966	2,961	2,005	449	4,517	838	18 6	643	195
1911	6,721	4,086	2,635	593	6,128	1,239	20.2	964	275
1912	6,759	3,828	2,931	614	6,145	1,226	20.0	913	313
1913	6,634	3,691	2,943	565	6,069	930	15.3	677	253
1914	8,447	4,901	3,546	718	7,729	1,805	23.3	1,388	417
Total	33,527	19,467	14,060	2,939	30,588	6,038	19.9	4,585	1,453
Grand total	61,779	37,210	24,569	5,973	55,806	11,023	19.8	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Under 14.	Over 14.	Continuous residence in United States.
1908	889	645	244	51	838	719
1909	1,027	743	284	70	957	874
Total	1,916	1,388	528	121	1,795	1,593
1910	926	626	300	73	853	644
1911	913	598	315	59	854	748
1912	1,288	893	395	79	1,209	950
1913	1,671	1,127	544	137	1 534	1,245
1914	1,805	1,195	610	117	1,688	1,422
Total	6,603	4,439	2,164	465	6,138	5,009

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Under 14.	Over 14.
1908	3,737	2,194	1,543	370	3,367
1909	3,280	1,858	1,422	271	3,009
Total	7,017	4,052	2,965	641	6,376
1910	4,040	2,335	1,705	376	3,664
1911	5,808	3,488	2,320	534	5,274
1912	5,471	2,935	2,536	535	4,936
1913	4,963	2,564	2,399	428	4,535
1914	6,642	3,706	2,936	601	6,041
Total	26,924	15,028	11,896	2,474	24,450

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ARMENIAN.

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Illiterate over 14.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	982	748	234	110	872	213	24.4	.....	.....
1901	1,855	1,364	491	242	1,613	346	21.5	.....	.....
1902	1,151	946	205	115	1,036	234	22.6	.....	.....
1903	1,759	1,424	335	150	1,609	444	27.6	.....	.....
1904	1,745	1,315	430	238	1,507	330	21.9	.....	.....
Total	7,492	5,797	1,695	855	6,637	1,567	23.5	.....	.....
1905	1,878	1,339	539	246	1,632	310	19.0	.....	.....
1906	1,895	1,423	472	223	1,672	460	27.5	.....	.....
1907	2,644	1,874	770	371	2,273	546	24.0	.....	.....
1908	3,299	2,097	1,202	581	2,718	808	29.7	448	360
1909	3,108	2,595	513	191	2,917	658	22.6	538	120
Total	12,824	9,328	3,496	1,612	11,212	2,782	24.8	986	480
1910	5,508	4,686	822	389	5,119	1,193	23.2	1,010	183
1911	3,092	2,643	449	205	2,887	662	22.9	574	88
1912	5,222	4,476	746	290	4,932	1,189	24.1	1,007	182
1913	9,353	7,893	1,460	718	8,635	2,257	26.1	1,839	418
1914	7,785	6,533	1,252	538	7,247	2,116	29.2	1,767	349
Total	30,960	26,231	4,729	2,140	28,820	7,417	25.8	6,197	1,220
Grand total	51,276	41,356	9,920	4,607	46,669	11,766	25.2	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Under 14.	Over 14.	Resident not over 5 years.
1908	234	221	13	2	232	151
1909	541	490	51	19	522	322
Total	775	711	64	21	754	473
1910	521	492	29	14	507	335
1911	999	901	98	33	966	650
1912	718	682	36	16	702	427
1913	676	640	36	4	672	415
1914	1,250	1,199	51	9	1,241	914
Total	4,164	3,914	250	76	4,088	2,741

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Under 14.	Over 14.
1908	3,065	1,876	1,189	579	2,486
1909	2,567	2,105	462	172	2,395
Total	5,632	3,981	1,651	751	4,881
1910	4,987	4,194	793	375	4,612
1911	2,093	1,742	351	172	1,921
1912	4,504	3,794	710	274	4,230
1913	8,677	7,253	1,424	714	7,963
1914	6,535	5,334	1,201	529	6,006
Total	26,796	22,317	4,479	2,064	24,732

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BOHEMIAN AND MORAVIAN (CZECH).

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Illiterate over 14.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	3,060	1,562	1,498	593	2,467	75	3.0		
1901	3,766	1,943	1,823	757	3,009	45	1.5	.....	.....
1902	5,590	3,278	2,312	1,025	4,565	74	1.6	.....	.....
1903	9,591	5,820	3,771	1,856	7,735	123	1.6	.....	.....
1904	11,911	6,657	5,254	2,694	9,217	170	1.8	.....	.....
Total	33,918	19,260	14,658	6,925	26,993	487	1.8	.....	.....
1905	11,757	6,662	5,095	2,620	9,137	155	1.7	.....	.....
1906	12,958	7,418	5,540	2,678	10,280	180	1.7	.....	.....
1907	13,554	8,142	5,412	2,539	11,015	231	2.1	.....	.....
1908	10,164	5,495	4,669	2,216	7,948	124	1.6	62	62
1909	6,850	3,998	2,852	1,440	5,410	81	1.5	42	39
Total	55,283	31,715	23,568	11,493	43,790	771	1.7	104	101
1910	8,462	4,874	3,588	1,503	6,959	81	1.2	40	41
1911	9,223	5,214	4,009	1,748	7,475	130	1.7	92	38
1912	8,439	4,565	3,874	1,610	6,829	84	1.2	20	64
1913	11,091	6,328	4,763	2,006	9,085	96	1.1	52	44
1914	9,928	5,367	4,561	1,972	7,956	101	1.3	49	52
Total	47,143	26,348	20,795	8,839	38,304	492	1.3	253	239
Grand total	136,344	77,323	59,021	27,257	109,087	1,750	1.6	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Under 14.	Over 14.	Resident not over 5 years.
1908	1,051	755	296	58	993	810
1909	699	449	250	55	644	605
Total	1,750	1,204	546	113	1,637	1,415
1910	943	601	342	49	894	735
1911	1,208	806	402	76	1,132	911
1912	1,149	780	369	59	1,090	807
1913	871	545	326	30	841	506
1914	1,011	638	373	55	956	699
Total	5,182	3,370	1,812	269	4,913	3,658

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Under 14.	Over 14.
1908	9,113	4,640	4,473	2,158	6,955
1909	6,151	3,549	2,602	1,385	4,766
Total	15,264	8,189	7,075	3,543	11,721
1910	7,519	4,273	3,246	1,454	6,065
1911	8,015	4,408	3,607	1,672	6,343
1912	7,290	3,785	3,505	1,551	5,739
1913	10,220	5,783	4,437	1,976	8,244
1914	8,917	4,729	4,188	1,917	7,000
Total	41,961	22,978	18,983	8,570	33,391

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BULGARIAN, SERVIAN, AND MONTENEGRIN.

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Illiterate over 14.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	204	200	4	1	203	73	36.0	.....	.....
1901	611	499	112	54	557	212	38.1	.....	.....
1902	1,291	1,202	89	30	1,261	474	37.6	.....	.....
1903	6,479	6,315	164	74	6,405	2,860	44.6	.....	.....
1904	4,577	4,385	192	76	4,501	2,042	45.4	.....	.....
Total	13,162	12,601	561	235	12,927	5,661	43.8	.....	.....
1905	5,823	5,562	261	97	5,726	2,225	38.9	.....	.....
1906	11,548	11,104	444	224	11,324	4,735	41.8	.....	.....
1907	27,174	26,423	751	296	26,878	12,036	44.8	.....	.....
1908	18,246	17,416	830	339	17,907	6,389	35.7	6,057	332
1909	6,214	5,756	458	211	6,003	2,794	46.5	2,631	163
Total	69,005	66,261	2,744	1,167	67,838	28,179	41.5	8,688	495
1910	15,130	14,253	877	388	14,742	6,155	41.7	5,828	327
1911	10,222	9,485	737	339	9,883	2,984	30.2	2,774	210
1912	10,657	9,626	1,031	453	10,204	3,352	32.9	3,010	342
1913	9,087	7,834	1,253	560	8,527	2,940	34.5	2,516	424
1914	15,084	13,465	1,619	689	14,395	3,291	22.9	2,775	516
Total	60,180	54,663	5,517	2,429	57,751	18,722	32.4	16,903	1,819
Grand total	142,347	133,525	8,822	3,831	138,516	52,562	37.9	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Under 14.	Over 14.	Resident not over 5 years.
1908	5,965	5,843	122	22	5,943	5,540
1909	2,312	2,235	77	31	2,281	2,175
Total	8,277	8,078	199	53	8,224	7,715
1910	2,720	2,606	114	24	2,696	2,399
1911	6,472	6,250	222	53	6,419	5,786
1912	7,349	7,142	207	39	7,310	6,069
1913	13,525	13,222	303	66	13,459	10,628
1914	5,780	5,461	319	84	5,696	4,528
Total	35,846	34,681	1,165	266	35,580	29,410

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Under 14.	Over 14.
1908	12,281	11,573	708	317	11,964
1909	3,902	3,521	381	180	3,722
Total	16,183	15,094	1,089	497	15,686
1910	12,410	11,647	763	364	12,046
1911	3,750	3,235	515	286	3,464
1912	3,308	2,484	824	414	2,894
1913	−4,438	−5,388	950	494	−4,932
1914	9,304	8,004	1,300	605	8,699
Total	24,334	19,982	4,352	2,163	22,171

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CHINESE.

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Illiterate over 14.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	1,250	1,241	9	6	1,244	17	1.4	.....	.....
1901	2,452	2,413	39	56	2,396	164	6.8	.....	.....
1902	1,631	1,587	44	29	1,602	68	4.2	.....	.....
1903	2,192	2,152	40	32	2,160	280	13.0	.....	.....
1904	4,327	4,209	118	90	4,237	348	8.2	.....	.....
Total	11,852	11,602	250	213	11,639	877	7.5	.....	.....
1905	1,971	1,883	88	28	1,943	98	5.0	.....	.....
1906	1,485	1,397	88	67	1,418	80	5.6	.....	.....
1907	770	706	64	85	685	51	7.5	.....	.....
1908	1,263	1,177	86	150	1,113	103	9.2	71	32
1909	1,841	1,706	135	232	1,609	207	12.9	138	69
Total	7,330	6,869	461	562	6,768	539	8.0	109	101
1910	1,770	1,598	172	221	1,549	243	15.7	153	90
1911	1,307	1,124	183	112	1,195	129	10.8	50	79
1912	1,608	1,367	241	207	1,401	171	12.2	8	163
1913	2,022	1,692	330	189	1,833	221	12.1	16	205
1914	2,354	2,052	302	144	2,210	170	7.7	12	158
Total	9,061	7,833	1,228	873	8,188	934	11.4	239	695
Grand total	28,243	26,304	1,939	1,648	26,595	2,350	8.8	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Under 14.	Over 14.	Resident not over 5 years.
1908	3,898	3,760	138	33	3,865	677
1909	3,397	3,325	72	30	3,367	340
Total	7,295	7,085	210	63	7,232	1,017
1910	2,383	2,334	49	57	2,326	226
1911	2,716	2,660	56	11	2,705	251
1912	2,549	2,483	66	6	2,543	345
1913	2,250	2,204	46	2	2,248	227
1914	2,059	2,005	54	7	2,052	304
Total	11,957	11,686	271	83	11,874	1,353

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Under 14.	Over 14.
1908	−2,635	−2,583	− 52	117	−2,752
1909	−1,556	−1,619	63	202	−1,758
Total	−4,191	−4,202	11	319	−4,510
1910	− 613	− 736	123	164	− 777
1911	−1,409	−1,536	127	101	−1,510
1912	− 941	−1,116	175	201	−1,142
1913	− 228	− 512	284	187	− 415
1914	295	47	248	137	158
Total	−2,896	−3,853	957	790	−3,686

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CROATIAN AND SLOVENIAN.

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Illiterate over 14.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	17,184	14,934	2,250	667	16,517	6,174	37.4	.....	.....
1901	17,928	15,492	2,436	745	17,183	6,814	39.7	.....	.....
1902	30,233	27,097	3,136	989	29,244	12,355	42.2	.....	.....
1903	32,907	29,222	3,685	1,111	31,796	11,179	35.2	.....	.....
1904	21,242	17,644	3,598	1,225	20,017	7,220	36.1	.....	.....
Total	119,494	104,389	15,105	4,737	114,757	43,742	38.1	.....	.....
1905	35,104	30,253	4,851	1,383	33,721	12,875	38.2	.....	.....
1906	44,272	38,287	5,985	1,674	42,598	17,017	40.0	.....	.....
1907	47,826	40,538	7,288	1,694	46,132	16,786	36.4	.....	.....
1908	20,472	15,476	4,996	1,567	18,905	5,676	30.0	4,470	1,206
1909	20,181	15,710	4,471	1,258	18,923	5,437	28.7	4,479	958
Total	167,855	140,264	27,591	7,576	160,279	57,791	36.0	8,949	2,164
1910	39,562	32,947	6,615	1,855	37,707	12,662	33.6	11,127	1,535
1911	18,982	13,466	5,516	1,587	17,395	4,500	25.9	3,366	1,134
1912	24,366	17,383	6,983	2,063	22,303	6,146	27.6	4,550	1,596
1913	42,499	31,590	10,909	3,422	39,077	9,082	23.2	6,703	2,379
1914	37,284	26,877	10,407	3,511	33,773	7,874	23.3	5,560	2,314
Total	162,693	122,263	40,430	12,438	150,255	40,264	26 8	31,306	8,958
Grand total	450,042	366,916	83,126	24,751	425,291	141,797	33.3	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Under 14.	Over 14.	Resident not over 5 years.
1908	28,589	26,753	1,836	422	28,167	23,058
1909	8,981	7,861	1,120	287	8,694	7,781
Total	37,570	34,614	2,956	709	36,861	30,839
1910	7,133	6,110	1,023	281	6,852	5,746
1911	13,735	12,245	1,490	316	13,419	10,479
1912	13,963	12,529	1,434	256	13,707	8,832
1913	10,209	9,098	1,111	146	10,063	6,144
1914	14,440	12,790	1,650	224	14,216	9,976
Total	59,480	52,772	6,708	1,223	58,257	41,177

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Under 14.	Over 14.
1908	—8,117	—11,277	3,160	1,145	—9,262
1909	11,200	7,849	3,351	971	10,229
Total	3,083	— 3,428	6,511	2,116	967
1910	32,429	26,837	5,592	1,574	30,855
1911	5,247	1,221	4,026	1,271	3,976
1912	10,403	4,854	5,549	1,807	8,596
1913	32,290	22,492	9,798	3,276	29,014
1914	22,844	14,087	8,757	3,287	19,557
Total	103,213	69,491	33,722	11.215	91,998

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CUBAN.

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Illiterate over 14.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	2,678	1,763	915	599	2,079	142	6.8	.....	.....
1901	1,622	1,019	603	360	1,262	119	9.4	.....	.....
1902	2,423	1,693	730	485	1,938	156	8.0	.....	.....
1903	2,944	1,945	999	610	2,334	97	4.2	.....	.....
1904	4,811	3,346	1,465	913	3,898	337	8.6	.....	.....
Total	14,478	9,766	4,712	2,967	11,511	851	7.4	.....	.....
1905	7,259	4,925	2,334	1,346	5,913	457	7.7	.....	.....
1906	5,591	3,769	1,822	963	4,628	216	4.6	.....	.....
1907	5,475	3,747	1,728	790	4,685	567	12.1	.....	.....
1908	3,323	2,339	984	445	2,878	73	2.5	41	32
1909	3,380	2,322	1,058	536	2,844	58	2.0	37	21
Total	25,028	17,102	7,926	4,080	20,948	1,371	6.5	78	53
1910	3,331	2,342	989	550	2,781	114	4.1	65	49
1911	3,914	2,762	1,152	585	3,329	82	2.5	42	40
1912	3,155	2,098	1,057	455	2,700	57	2.1	27	30
1913	3,099	2,126	973	396	2,703	39	1.4	16	23
1914	3,539	2,452	1,087	488	3,051	48	1.5	26	22
Total	17,038	11,780	5,258	2,474	14,564	340	2.3	176	164
Grand total	56,544	38,648	17,896	9,521	47,023	2,562	5.4	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Under 14.	Over 14.	Resident not over 5 years.
1908	2,089	1,340	749	360	1,729	1,939
1909	1,243	852	391	186	1,057	1,154
Total	3,332	2,192	1,140	546	2,786	3,093
1910	1,556	1,085	471	226	1,330	1,482
1911	2,234	1,531	703	284	1,950	2,088
1912	1,963	1,377	586	303	1,660	1,817
1913	1,264	835	429	163	1,101	1,072
1914	947	659	288	118	829	820
Total	7,964	5,487	2,477	1,094	6,870	7,279

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Under 14.	Over 14.
1908	1,234	999	235	85	1,149
1909	2,137	1,470	667	350	1,787
Total	3,371	2,469	902	435	2,936
1910	1,775	1,257	518	324	1,451
1911	1,680	1,231	449	301	1,379
1912	1,192	721	471	152	1,040
1913	1,835	1,291	544	233	1,602
1914	2,592	1,793	799	370	2,222
Total	9,074	6,293	2,781	1,380	7,694

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DALMATIAN, BOSNIAN, AND HERZOGOVINIAN.

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Illiterate over 14.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	675	637	38	37	638	212	33.2	.....	.....
1901	732	630	102	40	692	202	29.2	.....	.....
1902	1,004	895	109	45	959	343	35.8	.....	.....
1903	1,736	1,544	192	33	1,703	406	23.8	.....	.....
1904	2,036	1,904	132	47	1,989	708	35.6	.....	.....
Total	6,183	5,610	573	202	5,981	1,871	31.3	.....	.....
1905	2,639	2,489	150	62	2,577	991	38.5	.....	.....
1906	4,568	4,346	222	77	4,491	1,988	44.3	.....	.....
1907	7,393	7,061	332	109	7,284	3,618	49.7	.....	.....
1908	3,747	3,379	368	115	3,632	1,615	44.5	1,476	139
1909	1,888	1,617	271	80	1,808	634	35.0	551	83
Total	20,235	18,892	1,343	443	19,792	8,846	44.8	2,027	222
1910	4,911	4,453	458	173	4,738	1,867	39.4	1,699	168
1911	4,400	3,809	591	175	4,225	1,797	42.5	1,599	198
1912	3,672	3,152	520	130	3,542	1,420	40.1	1,250	170
1913	4,520	3,938	582	159	4,361	2,066	47.4	1,857	209
1914	5,149	4,437	712	206	4,943	2,366	47.8	2,138	228
Total	22,652	19,789	2,863	843	21,809	9,516	43.7	8,543	973
Grand total	49,070	44,291	4,779	1,488	47,582	20,233	42.5	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Under 14.	Over 14.	Resident not over 5 years.
1908	1,046	999	47	21	1,025	847
1909	515	477	38	15	500	439
Total	1,561	1,476	85	36	1,525	1,286
1910	432	410	22	9	423	366
1911	935	873	62	21	914	765
1912	927	893	34	7	920	653
1913	849	824	25	5	844	590
1914	878	847	31	7	871	563
Total	4,021	3,847	174	49	3,972	2,927

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Under 14.	Over 14.
1908	2,701	2,380	321	94	2,607
1909	1,373	1,140	233	65	1,308
Total	4,074	3,520	554	159	3,915
1910	4,479	4,043	436	164	4,315
1911	3,465	2,936	529	154	3,311
1912	2,745	2,259	486	123	2,622
1913	3,671	3,114	557	154	3,517
1914	4,271	3,590	681	199	4,072
Total	18,631	15,942	2,689	794	17,837

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DUTCH AND FLEMISH.

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Illiterate over 14.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	2,702	1,765	937	704	1,998	190	9.5	.....	.....
1901	3,299	2,149	1,150	769	2,530	199	7.8	.....	.....
1902	4,117	2,745	1,372	956	3,161	240	7.6	.....	.....
1903	6,496	4,312	2,184	1,602	4,894	334	6.8	.....	.....
1904	7,832	5,191	2,641	1,693	6,139	253	4.1	.....	.....
Total	24,446	16,162	8,284	5,724	18,722	1,216	6.5	.....	.....
1905	8,498	5,693	2,805	1,699	6,799	363	5.3	.....	.....
1906	9,735	6,526	3,209	1,706	8,029	322	4.0	.....	.....
1907	12,467	8,362	4,105	2,560	9,907	417	4.2	.....	.....
1908	9,526	5,789	3,737	2,250	7,276	245	3.4	138	107
1909	8,114	5,131	2,983	1,757	6,357	163	2.6	117	46
Total	48,340	31,501	16,839	9,972	38,368	1,510	3.9	275	153
1910	13,012	8,742	4,270	2,630	10,382	282	2.7	193	89
1911	13,862	8,778	5,084	3,096	10,766	243	2.3	141	102
1912	10,935	6,808	4,127	2,352	8,583	159	1.8	86	73
1913	14,507	9,471	5,036	2,675	11,832	233	2.0	160	73
1914	12,566	7,737	4,829	2,400	10,166	217	2.1	121	96
Total	64,882	41,536	23,346	13,153	51,729	1,134	2.2	701	433
Grand total	137,668	89,199	48,469	28,849	108,819	3,860	3.5	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Over 14.	Under 14.	Resident not over 5 years.
1908	1,198	931	267	96	1,102	929
1909	727	527	200	69	658	612
Total	1,925	1,458	467	165	1,760	1,541
1910	1,192	828	364	107	1,085	839
1911	1,689	1,254	435	167	1,522	1,118
1912	1,816	1,301	515	194	1,622	1,122
1913	2,148	1,600	548	207	1,941	1,004
1914	2,252	1,605	647	194	2,058	1,396
Total	9,097	6,588	2,509	869	8,228	5,479

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Over 14.	Under 14.
1908	8,328	4,858	3,470	2,154	6,174
1909	7,387	4,604	2,783	1,688	5,699
Total	15,715	9,462	6,253	3,842	11,873
1910	11,820	7,914	3,906	2,523	9,297
1911	12,173	7,524	4,649	2,929	9,244
1912	9,119	5,507	3,612	2,158	6,961
1913	12,359	7,871	4,488	2,468	9,891
1914	10,314	6,132	4,182	2,206	8,108
Total	55,785	34,948	20,837	12,284	43,501

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EAST INDIAN.

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Illiterate over 14.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	9	8	1	0	9	1	11.1	.....	.....
1901	20	18	2	1	19	5	26.3	.....	.....
1902	84	82	2	3	81	4	4.9	.....	.....
1903	83	70	13	5	78	18	23.1	.....	.....
1904	258	241	17	18	240	76	31.7	.....	.....
Total	454	419	35	27	427	104	24.4	.....	.....
1905	145	137	8	3	142	17	12.0	.....	.....
1906	271	252	19	15	256	78	30.5	.....	.....
1907	1,072	1,056	16	4	1,068	490	45.9	.....	.....
1908	1,710	1,702	8	3	1,707	985	57.7	984	1
1909	337	327	10	4	333	99	29.7	99	0
Total	3,535	3,474	61	29	3,506	1,669	47.6	1,083	1
1910	1,782	1,768	14	6	1,776	936	52.7	930	6
1911	517	511	6	9	508	257	50.3	256	1
1912	165	153	12	2	163	9	5.5	9	0
1913	188	184	4	1	187	23	12.3	23	0
1914	172	163	9	2	170	23	13.6	23	0
Total	2,824	2,779	45	20	2,804	1,248	44.5	1,241	7
Grand total	6,813	6,672	141	76	6,737	3,021	44.7	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Under 14.	Over 14.	Resident not over 5 years.
1908	124	122	2	0	124	116
1909	41	39	2	2	39	36
Total	165	161	4	2	163	152
1910	80	70	10	2	78	48
1911	75	70	5	4	71	73
1912	164	161	3	2	162	102
1913	213	212	1	0	213	104
1914	143	134	9	2	141	78
Total	675	647	28	10	665	405

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Under 14.	Over 14.
1908	1,586	1,580	6	3	1,583
1909	296	288	8	2	294
Total	1,882	1,868	14	5	1,877
1910	1,702	1,698	4	4	1,698
1911	442	441	1	5	437
1912	1	−8	9	0	1
1913	−25	−28	3	1	−26
1914	29	29	0	0	29
Total	2,149	2,132	17	10	2,139

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ENGLISH.

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Illiterate over 14.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	10,897	6,710	4,187	1,659	9,238	190	2.1	.....	.....
1901	13,488	8,041	5,447	2,105	11,383	208	1.8	.....	.....
1902	14,942	8,967	5,975	2,367	12,575	240	1.9	.....	.....
1903	28,451	17,229	11,222	4,270	24,181	400	1.6	.....	.....
1904	41,479	25,326	16,153	5,812	35,667	449	1.3	.....	.....
Total	109,257	66,273	42,984	16,213	93,044	1,487	1.6	.....	.....
1905	50,865	31,965	18,900	6,956	43,909	553	1.3	.....	.....
1906	45,079	28,010	17,069	6,081	38,998	375	1.0	.....	.....
1907	51,126	33,100	18,026	7,982	43,144	602	1.4	.....	.....
1908	49,056	29,727	19,329	7,990	41,066	571	1.4	332	239
1909	39,021	23,440	15,581	5,745	33,276	235	.7	134	101
Total	235,147	146,242	88,905	34,754	200,393	2,336	1.2	466	340
1910	53,498	32,199	21,299	8,697	44,801	256	.6	152	104
1911	57,258	32,980	24,278	9,920	47,338	380	.8	218	162
1912	49,689	27,133	22,556	8,395	41,294	270	.7	129	141
1913	55,522	31,320	24,202	8,915	46,607	301	.6	160	141
1914	51,746	28,920	22,826	8,060	43,686	301	.7	124	177
Total	267,713	152,552	115,161	43,987	223,726	1,508	.7	783	725
Grand total	612,117	365,067	247,050	94,954	517,163	5,331	1.1	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Under 14.	Over 14.	Resident not over 5 years.
1908	5,320	3,473	1,847	530	4,790	4,335
1909	3,800	2,326	1,474	395	3,405	3,081
Total	9,120	5,799	3,321	925	8,195	7,416
1910	6,508	4,192	2,316	562	5,946	4,151
1911	9,432	6,293	3,139	890	8,542	4,735
1912	10,341	6,566	3,775	982	9,359	5,789
1903	10,794	6,797	3,997	1,104	9,690	5,033
1914	11,187	7,005	4,182	1,062	10,125	6,074
Total	48,262	30,853	17,409	4,600	43,662	25,782

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Under 14.	Over 14.
1908	43,736	26,254	17,482	7,460	36,276
1909	35,221	21,114	14,107	5,350	29,871
Total	78,957	47,368	31,589	12,810	66,147
1910	46,990	28,007	18,983	8,135	38,855
1911	47,826	26,687	21,139	9,030	38,796
1912	39,348	20,567	18,781	7,413	31,935
1913	44,728	24,523	20,205	7,811	36,917
1914	40,559	21,915	18,644	6,998	33,561
Total	219,451	121,699	97,752	39,387	180,064

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FINNISH.

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Illiterate over 14.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	12,612	8,000	4,612	1,303	11,219	303	2.7	.....	.....
1901	9,999	6,458	3,541	1,099	8,900	197	2.2	.....	.....
1902	13,868	9,585	4,283	1,289	12,579	178	1.4	.....	.....
1903	18,864	12,755	6,109	1,807	17,057	378	2.2	.....	.....
1904	10,157	5,583	4,574	1,506	8,651	234	2.7	.....	.....
Total	65,500	42,381	23,119	7,094	58,406	1,290	2.2	.....	.....
1905	17,012	11,907	5,105	1,483	15,529	279	1.8	.....	.....
1906	14,136	9,525	4,611	1,005	13,131	202	1.5	.....	.....
1907	14,860	10,326	4,534	967	13,893	429	3.1	.....	.....
1908	6,746	3,652	3,094	670	6,076	242	4.0	145	97
1909	11,687	7,832	3,855	818	10,869	53	.5	36	17
Total	64,441	43,242	21,199	4,943	59,498	1,205	2.0	181	114
1910	15,736	10,724	5,012	1,235	14,501	73	.5	35	38
1911	9,779	5,645	4,134	977	8,802	48	.5	25	23
1912	6,641	3,354	3,287	713	5,928	66	1.1	30	36
1913	12,756	8,219	4,537	888	11,868	85	.7	54	31
1914	12,805	7,582	5,223	1,115	11,690	91	.8	49	42
Total	57,717	35,524	22,193	4,928	52,789	363	.7	193	170
Grand total	187,658	121,147	66,511	16,965	170,693	2,858	1.7	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Under 14.	Over 14.	Resident not over 5 years.
1908	3,463	2,770	693	203	3,260	2,456
1909	1,057	787	270	56	1,001	717
Total	4,520	3,557	963	259	4,261	3,173
1910	1,276	993	283	98	1,178	520
1911	4,219	3,615	604	172	4,047	1,248
1912	4,148	3,306	842	214	3,934	1,712
1913	3,053	2,221	832	124	2,929	1,285
1914	2,941	2,028	913	125	2,816	1,473
Total	15,637	12,163	3,474	733	14,904	6,238

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Under 14.	Over 14.
1908	3,283	882	2,401	467	2,816
1909	10,630	7,045	3,585	762	9,868
Total	13,913	7,927	5,986	1,229	12,684
1910	14,460	9,731	4,729	1,137	13,323
1911	5,560	2,030	3,530	805	4,755
1912	2,493	48	2,445	499	1,994
1913	9,703	5,998	3,705	764	8,939
1914	9,864	5,554	4,310	990	8,874
Total	42,080	23,361	18,719	4,195	37,885

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FRENCH.

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Illiterate over 14.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	2,095	1,311	784	284	1,861	74	4.0	.....	.....
1901	4,036	2,526	1,510	432	3,604	140	3.9	.....	.....
1902	4,122	2,608	1,514	573	3,549	171	4.8	.....	.....
1903	7,166	4,450	2,716	938	6,228	248	4.0	.....	.....
1904	11,557	6,696	4,861	1,413	10,144	320	3.2	.....	.....
Total	28,976	17,591	11,385	3,590	25,386	953	3.8	.....	.....
1905	11,347	6,705	4,642	1,121	10,226	280	2.7	.....	.....
1906	10,379	5,924	4,455	889	9,490	218	2.3	.....	.....
1907	9,392	5,425	3,967	1,002	8,390	175	2.1	.....	.....
1908	12,881	7,694	5,187	1,920	10,961	870	7.9	613	257
1909	19,423	10,735	8,688	4,444	14,979	1,973	13.2	1,395	578
Total	63,422	36,483	26,939	9,376	54,046	3,516	6.5	2,008	835
1910	21,107	11,715	9,392	4,918	16,189	1,780	11.0	1,195	585
1911	18,132	10,254	7,878	3,403	14,729	1,100	7.5	758	342
1912	18,382	10,327	8,055	3,320	15,062	1,117	7.4	793	324
1913	20,652	11,620	9,032	3,831	16,821	1,322	7.9	955	367
1914	18,166	10,404	7,762	3,170	14,996	1,133	7.5	833	300
Total	96,439	54,320	42,119	18,642	77,797	6,452	8.3	4,534	1,918
Grand total	188,837	108,394	80,443	31,608	157,229	10,921	7.0	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Under 14.	Over 14.	Resident not over 5 years.
1908	3,063	1,838	1,225	148	2,915	1,992
1909	2,637	1,543	1,094	127	2,510	1,795
Total	5,700	3,381	2,319	275	5,425	3,787
1910	4,029	2,427	1,602	248	3,781	2,794
1911	3,400	2,094	1,306	202	3,198	2,158
1912	4,189	2,654	1,535	336	3,853	2,590
1913	4,019	2,550	1,469	191	3,828	2,610
1914	2,930	1,819	1,111	121	2,809	1,858
Total	18,567	11,544	7,023	1,098	17,469	12,010

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Under 14.	Over 14.
1908	9,818	5,856	3,962	1,772	8,046
1909	16,786	9,192	7,594	4,317	12,469
Total	26,604	15,048	11,556	6,089	20,515
1910	17,078	9,288	7,790	4,670	12,408
1911	14,732	8,160	6,572	3,201	11,531
1912	14,193	7,673	6,520	2,984	11,209
1913	16,633	9,070	7,563	3,640	12,993
1914	15,236	8,585	6,651	3,049	12,187
Total	77,872	42,776	35,096	17,544	60,328

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GERMAN.

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Illiterate over 14.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	29,682	17,284	12,398	5,638	24,044	1,398	5.8	.....	.....
1901	34,742	20,214	14,528	6,490	28,252	1,167	4.1	.....	.....
1902	51,686	32,813	18,873	9,582	42,104	2,291	5.4	.....	.....
1903	71,782	44,663	27,119	13,377	58,405	2,576	4.4	.....	.....
1904	74,790	43,775	31,015	12,868	61,922	2,468	4.0	.....	.....
Total	262,682	158,749	103,933	47,955	214,727	9,900	4.6	.....	.....
1905	82,360	49,647	32,713	11,469	70,891	2,993	4.2	.....	.....
1906	86,813	51,427	35,386	13,076	73,737	3,811	5.2	.....	.....
1907	92,936	56,170	36,766	14,845	78,091	5,482	7.0	.....	.....
1908	73,038	41,209	31,829	13,899	59,139	4,212	7.1	2,065	2,147
1909	58,534	33,919	24,615	9,882	48,652	3,040	6.2	1,567	1,473
Total	393,681	232,372	161,309	63,171	330,510	19,538	5.9	3,622	3,620
1910	71,380	42,191	29,189	12,165	59,215	3,509	5.9	1,978	1,531
1911	66,471	37,629	28,842	11,680	54,791	2,810	5.1	1,389	1,421
1912	65,343	36,479	28,864	11,484	53,859	2,848	5.3	1,316	1,532
1913	80,865	45,974	34,891	15,450	65,415	4,153	6.3	1,991	2,162
1914	79,871	44,821	35,050	13,520	66,351	3,024	4.5	1,351	1,673
Total	363,930	207,094	156,836	64,299	299,631	16,344	5.5	8,025	8,319
Grand total	1,020,293	598,215	422,078	175,425	844,868	45,782	5.3	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Under 14.	Over 14.	Resident not over 5 years.
1908	14,418	10,070	4,348	751	13,667	11,307
1909	10,116	6,299	3,817	620	9,496	8,060
Total	24,534	16,369	8,165	1,371	23,163	19,367
1910	13,303	8,053	5,250	958	12,345	9,779
1911	15,243	10,070	5,173	911	14,332	10,736
1912	15,026	10,147	4,879	838	14,188	8,848
1913	11,871	7,613	4,258	751	11,120	6,615
1914	11,977	7,485	4,492	778	11,199	7,858
Total	67,420	43,368	24,052	4,236	63,184	43,836

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Under 14.	Over 14.
1908	58,620	31,139	27,481	13,148	45,472
1909	48,418	27,620	20,798	9,262	39,156
Total	107,038	58,759	48,279	22,410	84,628
1910	58,077	34,138	23,939	11,207	46,870
1911	51,228	27,559	23,669	10,769	40,459
1912	50,317	26,332	23,985	10,646	39,671
1913	68,994	38,361	30,633	14,699	54,295
1914	67,894	37,336	30,558	12,742	55,152
Total	296,510	163,726	132,784	60,063	236,447

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GREEK.

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Illiterate over 14.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	3,773	3,655	118	388	3,385	580	17.1	.....	.....
1901	5,919	5,754	165	506	5,413	1,401	25.9	.....	.....
1902	8,115	7,854	261	687	7,428	2,229	30.0	.....	.....
1903	14,376	13,885	491	1,185	13,191	3,658	27.7	.....	.....
1904	12,625	12,106	519	605	12,020	2,837	23.6	.....	.....
Total	44,808	43,254	1,554	3,371	41,437	10,705	25.9	.....	.....
1905	12,144	11,586	558	446	11,698	2,675	22.9	.....	.....
1906	23,127	22,266	861	718	22,409	5,268	23.5	.....	.....
1907	46,283	44,647	1,636	819	45,464	13,902	30.6	.....	.....
1908	28,808	26,972	1,836	868	27,940	7,954	28.5	7,146	808
1909	20,262	18,738	1,524	778	19,484	5,076	26.1	4,381	695
Total	130,624	124,209	6,415	3,629	126,995	34,875	27.5	11,527	1,503
1910	39,135	36,580	2,555	1,041	38,094	9,142	24.0	7,904	1,238
1911	37,021	34,105	2,916	1,106	35,915	8,244	23.0	7,003	1,241
1912	31,566	28,521	3,045	1,144	30,422	6,878	22.6	5,469	1,409
1913	38,644	35,143	3,501	1,269	37,375	8,732	23.4	7,174	1,558
1914	45,881	40,207	5,674	1,848	44,033	8,920	20.2	6,469	2,451
Total	192,247	174,556	17,691	6,408	185,839	41,916	22.6	34,019	7,897
Grand total	367,679	342,019	25,660	13,408	354,271	87,496	24.6	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Under 14.	Over 14.	Resident not over 14 years.
1908	6,763	6,597	166	69	6,694	5,606
1909	5,923	5,744	179	74	5,849	5,079
Total	12,686	12,341	345	143	12,543	10,685
1910	8,814	8,464	350	127	8,687	7,321
1911	11,134	10,787	347	99	11,035	8,877
1912	13,323	12,976	347	90	13,233	8,737
1913	31,556	31,115	441	113	31,443	18,054
1914	11,266	10,776	490	124	11,142	8,026
Total	76,093	74,118	1,975	553	75,540	49,015

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Under 14.	Over 14.
1908	22,045	20,375	1,670	799	21,246
1909	14,339	12,994	1,345	704	13,635
Total	36,384	33,369	3,015	1,503	34,881
1910	30,321	28,116	2,205	914	29,407
1911	25,887	23,318	2,569	1,007	24,880
1912	18,243	15,545	2,698	1,054	17,189
1913	7,088	4,028	3,060	1,156	5,932
1914	34,615	29,431	5,184	1,724	32,891
Total	116,154	100,438	15,716	5,855	110,299

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HEBREW.

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Number illiterate.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	60,764	36,330	24,434	13,092	47,672	10,898	22.9	.....	.....
1901	58,098	32,345	25,753	14,731	43,367	10,254	23.6	.....	.....
1902	57,688	32,737	24,951	15,312	42,376	12,108	28.6	.....	.....
1903	76,203	43,985	32,218	19,044	57,159	15,141	26.5	.....	.....
1904	106,236	65,040	41,196	23,529	82,707	19,268	23.3	.....	.....
Total	358,989	210,437	148,552	85,708	273,281	67,669	24.8	.....	.....
1905	129,910	82,076	47,834	28,553	101,357	23,577	23.3	.....	.....
1906	153,748	80,086	73,662	43,620	110,128	29,736	27.0	.....	.....
1907	149,182	80,530	68,652	37,696	111,486	32,323	29.0	.....	.....
1908	103,387	56,277	47,110	26,013	77,374	23,453	30.3	9,619	13,834
1909	57,551	31,057	26,494	15,210	42,341	12,372	29.2	4,944	7,428
Total	593,778	330,026	263,752	151,092	442,686	121,461	27.5	14,563	21,262
1910	84,260	46,206	38,054	21,869	62,391	18,299	29.3	7,786	10,513
1911	91,223	48,935	42,288	21,835	69,388	17,048	24.6	6,655	10,393
1912	80,595	42,751	37,844	20,091	60,504	15,428	25.5	5,860	9,568
1913	101,330	57,148	44,182	22,378	78,952	16,980	21.5	6,785	10,195
1914	138,051	74,905	63,146	30,113	107,938	21,490	19.9	7,815	13,675
Total	495,459	269,945	225,514	116,286	379,173	89,245	23.5	34,901	54,344
Grand total	1,448,226	810,408	637,818	353,086	1,095,140	278,375	25.4	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Under 14.	Over 14.	Resident not over 5 years.
1908	7,702	6,004	1,698	529	7,173	6,625
1909	5,859	4,122	1,737	500	5,359	5,166
Total	13,561	10,126	3,435	1,029	12,532	11,791
1910	5,689	4,222	1,467	387	5,302	4,622
1911	6,401	4,951	1,450	360	6,041	4,956
1912	7,418	5,648	1,770	395	7,023	5,274
1913	6,697	5,215	1,482	315	6,382	3,812
1914	6,826	5,161	1,665	338	6,488	5,042
Total	33,031	25,197	7,834	1,795	31,236	23,706

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Under 14.	Over 14.
1908	95,685	50,273	45,412	25,484	70,201
1909	51,692	26,935	24,757	14,710	36,982
Total	147,377	77,208	70,169	40,194	107,183
1910	78,571	41,984	36,587	21,482	57,089
1911	84,822	43,984	40,838	21,475	63,347
1912	73,177	37,103	36,074	19,696	53,481
1913	94,633	51,933	42,700	22,063	72,570
1914	131,225	69,744	61,481	29,775	101,450
Total	462,428	244,748	217,680	114,491	347,937

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IRISH.

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Number illiterate.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	35,607	16,674	18,933	1,382	34,225	1,121	3.3	.....	.....
1901	30,404	12,807	17,597	1,347	29,057	939	3.2	.....	.....
1902	29,001	12,727	16,274	1,183	27,818	1,081	3.9	.....	.....
1903	35,366	16,112	19,254	1,843	33,523	1,284	3.8	.....	.....
1904	37,076	16,607	20,469	1,966	35,110	1,179	3.4	.....	.....
Total	167,454	74,927	92,527	7,721	159,733	5,604	3.5	.....	.....
1905	54,266	24,640	29,626	2,580	51,686	1,575	3.0	.....	.....
1906	40,959	20,846	20,113	1,868	39,091	889	2.3	.....	.....
1907	38,706	21,871	16,835	2,243	36,463	764	2.1	.....	.....
1908	36,427	17,822	18,605	2,656	33,771	578	1.7	312	266
1909	31,185	15,785	15,400	1,990	29,195	425	1.4	237	188
Total	201,543	100,964	100,579	11,337	190,206	4,231	2.2	549	454
1910	38,382	21,075	17,307	2,837	35,545	516	1.5	333	183
1911	40,246	21,283	18,963	2,871	37,375	465	1.2	302	163
1912	33,922	17,012	16,910	2,357	31,565	414	1.3	230	184
1913	37,023	19,072	17,951	2,543	34,480	348	1.0	188	160
1914	33,898	16,793	17,105	2,482	31,416	359	1.1	225	134
Total	183,471	95,235	88,236	13,090	170,381	2,102	1.2	1,278	824
Grand total	552,468	271,126	281,342	32,148	520,320	11,937	2.3	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Under 14.	Over 14.	Resident not over 5 years.
1908	2,441	1,193	1,248	92	2,349	1,533
1909	1,578	732	846	63	1,515	1,010
Total	4,019	1,925	2,094	155	3,864	2,543
1910	2,472	1,270	1,202	120	2,352	1,393
1911	3,300	1,958	1,342	114	3,186	1,457
1912	4,086	2,125	1,961	149	3,937	1,831
1913	4,458	2,439	2,019	188	4,270	1,646
1914	4,689	2,274	2,415	133	4,556	2,064
Total	19,005	10,066	8,939	704	18,301	8,391

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Under 14.	Over 14.
1908	33,986	16,629	17,357	2,564	31,422
1909	29,607	15,053	14,554	1,927	27,680
Total	63,593	31,682	31,911	4,491	59,102
1910	35,910	19,805	16,105	2,717	33,193
1911	36,946	19,325	17,621	2,757	34,189
1912	29,836	14,887	14,949	2,208	27,628
1913	32,565	16,633	15,932	2,355	30,210
1914	29,209	14,519	14,690	2,349	26,860
Total	164,466	85,169	79,297	12,386	152,080

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ITALIAN (North).

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Number illiterate.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	17,316	13,540	3,776	1,574	15,742	1,963	11.3	.....	.....
1901	22,103	17,852	4,251	1,330	20,773	3,199	15.8	.....	.....
1902	27,620	22,425	5,195	2,215	25,405	3,663	14.4	.....	.....
1903	37,429	30,477	6,952	3,404	34,025	4,322	12.7	.....	.....
1904	36,699	28,784	7,915	3,033	33,666	4,167	12.6	.....	.....
Total	141,167	113,078	28,089	12,656	128,511	17,214	13.4	.....	.....
1905	39,930	31,695	8,235	3,569	36,361	5,063	14.0	.....	.....
1906	46,286	36,542	9,744	3,903	42,293	5,086	12.0	.....	.....
1907	51,564	40,949	10,615	4,008	47,556	4,756	10.0	.....	.....
1908	24,700	17,269	7,431	2,775	21,925	1,890	8.6	1,275	615
1909	25,150	18,844	6,306	2,178	22,972	1,910	8.3	1,490	420
Total	187,630	145,299	42,331	16,523	171,107	18,725	10.9	2,765	1,035
1910	30,780	23,754	7,026	2,722	28,058	2,045	7.3	1,627	418
1911	30,312	22,522	7,790	2,900	27,412	1,705	6.2	1,211	494
1912	26,443	18,507	7,936	3,033	23,410	1,344	5.8	890	454
1913	42,534	32,428	10,106	4,248	38,286	2,557	6.7	1,992	565
1914	44,802	33,552	11,250	4,775	40,027	2,473	6.2	1,867	606
Total	174,871	130,763	44,108	17,678	157,193	10,124	6.5	7,587	2,537
Grand total	503,668	389,140	114,528	46,857	456,811	46,063	10.5	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Under 14.	Over 14.	Resident not over 5 years.
1908	19,507	17,467	2,040	602	18,905	14,173
1909	16,122	14,083	2,039	679	15,443	13,367
Total	35,629	31,550	4,079	1,281	34,348	27,540
1910	13,431	11,389	2,042	750	12,681	10,039
1911	14,209	12,152	2,057	662	13,547	9,600
1912	13,006	11,285	1,721	386	12,620	7,876
1913	10,995	9,378	1,617	299	10,696	6,324
1914	12,663	10,707	1,956	323	12,340	7,006
Total	64,304	54,911	9,393	2,420	61,884	41,535

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Under 14.	Over 14.
1908	5,193	−193	5,391	2,173	3,020
1909	9,028	4,761	4,267	1,499	7,529
Total	14,221	4,568	9,658	3,672	10,549
1910	17,349	12,365	4,984	1,972	15,377
1911	16,103	10,370	5,733	2,238	13,865
1912	13,437	7,222	6,215	2,647	10,790
1913	31,539	23,050	8,489	3,949	27,590
1914	32,139	22,845	9,294	4,452	27,687
Total	110,567	75,852	34,715	15,258	95,309

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ITALIAN (South).

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Number illiterate.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	84,346	63,684	20,662	12,532	71,814	39,236	54.6	.....	.....
1901	115,704	90,395	25,309	15,794	99,910	59,033	59.1	.....	.....
1902	152,915	124,536	28,379	16,954	135,961	76,649	56.4	.....	.....
1903	196,117	158,939	37,178	21,619	174,498	84,583	48.5	.....	.....
1904	159,329	122,770	36,559	20,895	138,434	74,981	54.2	.....	.....
Total	708,411	560,324	148,087	87,794	620,617	334,482	53.4	.....	.....
1905	186,390	155,007	31,383	16,915	169,475	95,504	56.3	.....	.....
1906	240,528	190,992	49,536	26,546	213,982	115,035	53.7	.....	.....
1907	242,497	190,905	51,592	24,900	217,607	115,901	53.2	.....	.....
1908	110,547	73,824	36,723	18,465	92,082	46,678	50.6	30,287	16,391
1909	165,248	135,080	30,168	14,509	150,739	85,307	56.6	71,282	14,025
Total	945,210	745,808	199,402	101,325	843,885	458,415	54.5	101,569	30,416
1910	192,673	151,249	41,424	20,065	172,608	89,639	51.9	70,681	18,958
1911	159,638	116,244	43,394	21,171	138,467	68,402	49.4	50,200	18,202
1912	135,830	94,460	41,370	20,081	115,749	54,678	47.3	36,505	18,173
1913	231,613	176,472	55,141	27,302	204,311	99,461	48.7	75,305	24,156
1914	251,612	184,270	67,342	32,936	218,676	103,626	47.4	74,574	29,052
Total	971,366	722,695	248,671	121,555	849,811	415,806	49.0	307,265	108,541
Grand total	2,624,987	2,028,827	596,160	310,674	2,314,313	1,208,703	52.4	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Under 14.	Over 14.	Resident not over 5 years.
1908	147,828	134,783	13,045	5,289	142,539	123,063
1909	67,683	59,035	8,648	3,634	64,049	56,611
Total	215,511	193,818	21,693	8,923	206,588	179,674
1910	41,772	36,259	5,513	2,055	39,717	32,910
1911	62,009	55,542	6,467	2,036	59,973	49,826
1912	96,881	88,987	7,894	2,095	94,786	71,283
1913	79,057	70,619	8,438	2,198	76,859	54,853
1914	72,767	64,949	7,818	1,983	70,784	50,935
Total	352,486	316,356	36,130	10,367	342,119	259,807

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Under 14.	Over 14.
1908	−37,281	−60,959	23,678	13,176	−50,457
1909	97,565	76,045	21,520	10,875	86,690
Total	60,284	15,086	45,198	24,051	36,233
1910	150,901	114,990	35,911	18,010	132,891
1911	97,629	60,702	36,927	19,135	78,494
1912	38,949	5,473	33,476	17,986	20,963
1913	152,556	105,853	46,703	25,104	127,452
1914	178,845	119,321	59,524	30,953	147,892
Total	618,880	406,339	212,541	111,188	507,692

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JAPANESE.

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Number illiterate.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	12,628	12,260	368	32	12,596	1,123	8.9	.....	.....
1901	5,249	4,887	362	53	5,196	346	6.7	.....	.....
1902	14,455	10,589	3,866	630	13,825	163	1.2	.....	.....
1903	20,041	15,990	4,051	515	19,526	5,274	27.0	.....	.....
1904	14,382	12,729	1,653	190	14,192	3,071	21.6	.....	.....
Total	66,755	56,455	10,300	1,420	65,335	9,977	15.2	.....	.....
1905	11,021	9,810	1,211	124	10,897	4,287	39.3	.....	.....
1906	14,243	12,756	1,487	146	14,097	6,017	42.7	.....	.....
1907	30,824	27,845	2,979	249	30,575	9,668	31.5	.....	.....
1908	16,418	12,256	4,162	317	16,101	4,915	30.5	2,696	2,219
1909	3,275	1,462	1,813	149	3,126	899	28.8	205	694
Total	75,781	64,129	11,652	985	74,796	25,786	34.5	2,901	2,913
1910	2,798	915	1,883	121	2,677	721	27.3	42	689
1911	4,575	1,409	3,166	300	4,275	970	22.7	79	891
1912	6,172	1,930	4,242	328	5,844	1,745	29.8	236	1,500
1913	8,302	3,157	5,145	437	7,865	2,424	30.8	548	1,876
1914	8,941	3,292	5,649	438	8,503	1,425	16.7	358	1,067
Total	30,788	10,703	20,085	1,624	29,164	7,295	25.2	1,363	6,032
Grand total	173,324	131,287	42,037	4,029	169,295	43,058	25.4	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Under 14.	Over 14.	Resident not over 5 years.
1908	5,323	4,586	737	167	5,156	3,372
1909	3,894	3,196	698	223	3,671	1,426
Total	9,217	7,782	1,435	390	8,827	5,798
1910	4,377	3,476	901	233	4,144	1,310
1911	3,351	2,721	630	177	3,174	1,090
1912	1,501	1,167	334	22	1,479	543
1913	733	561	172	18	715	235
1914	794	615	179	12	782	243
Total	10,756	8,540	2,216	462	10,294	3,401

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Under 14.	Over 14.
1908	11,095	7,670	3,425	150	10,945
1909	−619	−1,734	1,115	−74	−545
Total	10,476	5,936	4,540	76	10,400
1910	−1,579	−2,561	982	−112	−1,467
1911	1,224	−1,312	2,536	123	1,101
1912	4,671	763	3,908	306	4,365
1913	7,569	2,596	4,973	419	7,150
1914	8,147	2,677	5,470	426	7,721
Total	20,032	2,163	17,869	1,162	18,870

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KOREAN.

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Number illiterate.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	71	71	0	0	71	16	22.5	.....	.....
1901	47	46	1	1	46	1	2.2	.....	.....
1902	28	26	2	1	27	0	.....	.....	.....
1903	564	496	68	43	521	199	38.2	.....	.....
1904	1,907	1,723	184	133	1,774	592	33.4	.....	.....
Total	2,617	2,362	255	178	2,439	808	.....	.....	.....
1905	4,929	4,506	423	325	4,604	1,925	41.8	.....	.....
1906	127	103	24	21	106	37	34.9	.....	.....
1907	39	36	3	1	38	0	.....	.....	.....
1908	26	20	6	4	22	2	9.1	1	1
1909	11	9	2	0	11	1	9.1	1	0
Total	5,132	4,674	458	351	4,781	1,965	41.2	2	1
1910	19	14	5	2	17	1	5.9	0	1
1911	8	0	8	1	7	5	71.4	0	5
1912	33	14	19	2	31	10	32.3	3	7
1913	64	15	49	13	51	12	23.9	3	9
1914	152	58	94	8	144	24	16.7	2	22
Total	276	101	175	26	250	52	20.8	8	44
Grand total	8,025	7,137	888	555	7,470	2,825	37.5	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Under 14.	Over 14.	Resident not over 5 years.
1908	188	174	14	2	186	168
1909	114	95	19	6	108	97
Total	302	269	33	8	294	265
1910	137	120	17	4	133	67
1911	41	35	6	0	41	5
1912	55	48	7	0	55	8
1913	44	38	6	0	44	2
1914	43	40	3	0	43	4
Total	320	281	39	4	316	86

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Under 14.	Over 14.
1908	−162	−154	− 8	2	−164
1909	−103	− 86	−17	− 6	− 97
Total	−265	−240	−25	− 4	−261
1910	−118	−106	−12	− 2	−116
1911	− 33	− 35	2	1	− 34
1912	− 22	− 34	12	2	− 24
1913	20	− 23	43	13	7
1914	109	18	91	8	101
Total	− 44	−180	136	22	− 66

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LITHUANIAN.

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Number illiterate.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	10,311	7,683	2,628	790	9,521	3,023	31.7	.....	.....
1901	8,815	6,499	2,316	712	8,103	4,037	49.8	.....	.....
1902	11,629	8,576	3,053	949	10,680	5,781	54.1	.....	.....
1903	14,432	10,721	3,711	1,137	13,295	6,199	46.6	.....	.....
1904	12,780	8,854	3,926	1,317	11,463	6,205	54.1	.....	.....
Total	57,967	42,333	15,634	4,905	53,062	25,245	46.4	.....	.....
1905	18,604	13,842	4,762	1,474	17,130	9,739	56.8	.....	.....
1906	14,257	9,429	4,828	1,270	12,987	7,975	61.4	.....	.....
1907	25,884	18,716	7,168	1,563	24,321	15,273	62.7	.....	.....
1908	13,720	8,522	5,198	1,256	12,464	7,506	60.2	4,384	3,122
1909	15,254	10,284	4,970	1,088	14,166	8,243	58.2	5,093	3,150
Total	87,719	60,793	26,926	6,651	81,068	48,736	60.0	9,477	6,272
1910	22,714	15,360	7,354	1,813	20,901	11,522	55.2	7,224	4,298
1911	17,027	10,473	6,554	1,382	15,645	8,621	55.1	4,879	3,742
1912	14,078	8,098	5,980	1,186	12,892	6,982	54.2	3,297	3,685
1913	24,647	16,069	8,578	1,760	22,887	11,178	48.7	6,317	4,861
1914	21,584	12,282	9,302	2,040	19,544	9,708	40.7	4,667	5,041
Total	100,050	62,282	37,768	8,181	91,869	48,011	52.2	26,384	21,627
Grand total	245,736	165,408	80,328	19,737	225,999	121,992	53.9	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Under 14.	Over 14.	Resident not over 5 years.
1908	3,388	2,828	560	124	3,264	2,704
1909	1,990	1,547	443	113	1,877	1,659
Total	5,378	4,375	1,003	237	5,141	4,363
1910	1,812	1,361	451	120	1,692	1,579
1911	2,430	1,865	565	159	2,271	2,099
1912	4,141	3,190	951	255	3,886	3,269
1913	3,276	2,412	864	191	3,085	2,585
1914	5,522	4,162	1,360	258	5,264	4,249
Total	17,181	12,990	4,191	983	16,198	13,781

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Under 14.	Over 14.
1908	10,332	5,694	4,638	1,132	9,200
1909	13,264	8,737	4,527	975	12,289
Total	23,596	14,231	9,165	2,107	21,489
1910	20,902	13,999	6,903	1,693	19,209
1911	14,597	8,608	5,989	1,223	13,374
1912	9,937	4,908	5,029	931	9,006
1913	21,371	13,657	7,714	1,569	19,802
1914	16,062	8,120	7,942	1,782	14,280
Total	82,869	49,292	33,577	7,198	75,671

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MAGYAR.

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Number illiterate.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	13,777	10,207	3,570	1,018	12,759	2,148	16.8	.....	.....
1901	13,311	9,627	3,684	1,108	12,203	912	7.5	.....	.....
1902	23,610	18,348	5,262	1,447	22,163	2,945	13.3	.....	.....
1903	27,124	20,440	6,684	2,141	24,983	2,619	10.5	.....	.....
1904	23,883	16,253	7,630	2,441	21,442	2,567	11.9	.....	.....
Total	101,705	74,875	26,830	8,155	93,550	11,191	11.9	.....	.....
1905	46,080	34,242	11,788	3,864	42,166	4,906	11.6	.....	.....
1906	44,261	31,760	12,501	3,974	40,287	5,103	12.6	.....	.....
1907	60,071	44,804	15,267	4,384	55,687	5,839	10.5	.....	.....
1908	24,378	15,504	8,874	3,447	20,931	2,318	11.1	1,390	928
1909	28,704	21,027	7,677	3,003	25,701	2,771	10.8	1,965	806
Total	203,444	147,337	56,107	18,672	184,772	20,937	11.3	3,255	1,734
1910	27,302	18,382	8,920	3,650	23,652	2,805	11.9	1,864	941
1911	19,996	11,640	8,356	3,095	16,901	1,872	11.1	1,045	827
1912	23,599	13,792	9,807	3,740	19,859	2,163	10.9	1,253	910
1913	30,610	16,637	13,973	5,670	24,940	2,463	9.9	1,183	1,280
1914	44,538	27,517	17,021	6,356	38,182	3,380	8.9	1,908	1,472
Total	146,045	87,968	58,077	22,511	123,534	12,683	10.2	7,253	5,430
Grand total	451,194	310,180	141,014	49,338	401,856	44,811	11.1	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Under 14.	Over 14.	Resident not over 5 years.
1908	29,276	24,941	4,335	835	28,441	25,248
1909	11,109	8,162	2,947	535	10,574	9,731
Total	40,385	33,103	7,282	1,370	39,015	34,979
1910	10,533	7,367	3,166	558	9,975	8,945
1911	18,975	14,827	4,148	847	18,128	16,142
1912	17,575	13,348	4,227	680	16,895	12,815
1913	11,496	8,225	3,271	567	10,929	7,687
1914	14,254	10,339	3,915	679	13,575	10,288
Total	72,833	54,106	18,727	3,331	69,502	55,877

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Under 14.	Over 14.
1908	−4,898	−9,437	4,539	2,612	−7,510
1909	17,595	12,865	4,730	2,468	15,127
Total	12,697	3,428	9,269	5,080	7,617
1910	16,769	11,015	5,754	3,092	13,677
1911	1,021	−3,187	4,208	2,248	−1,227
1912	6,024	444	5,580	3,060	2,964
1913	19,114	8,412	10,702	5,103	14,011
1914	30,284	17,178	13,106	5,677	24,607
Total	73,212	33,862	39,350	19,180	54,032

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MEXICAN.

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Number illiterate.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	261	154	107	55	206	79	38.4	.....	.....
1901	350	217	133	42	308	68	22.1	.....	.....
1902	715	532	183	84	631	138	21.9	.....	.....
1903	486	324	162	67	419	58	13.8	.....	.....
1904	447	354	93	41	406	41	10.1	.....	.....
Total	2,259	1,581	678	289	1,970	384	19.5	.....	.....
1905	227	152	75	29	198	19	9.6	.....	.....
1906	141	93	48	21	120	1	.8	.....	.....
1907	91	74	17	7	84	3	3.6	.....	.....
1908	5,682	3,968	1,714	1,022	4,660	2,770	59.4	1,938	832
1909	15,591	10,111	5,480	3,721	11,870	7,665	64.6	4,840	2,825
Total	21,732	14,398	7,334	4,800	16,932	10,458	61.8	6,778	3,657
1910	17,760	11,617	6,143	4,078	13,682	8,028	58.7	5,121	2,907
1911	18,784	12,423	6,361	4,111	14,673	8,111	55.3	5,445	2,666
1912	22,001	15,367	6,634	4,188	17,813	9,801	55.0	7,062	2,739
1913	10,964	6,389	4,595	3,048	7,906	3,692	46.7	2,011	1,681
1914	13,089	6,584	6,505	4,409	8,680	3,405	39.2	1,441	1,964
Total	82,588	52,350	30,238	19,834	62,754	33,037	52.6	21,080	11,957
Grand total	106,579	68,329	38,250	24,923	81,656	43,879	53.7	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Under 14.	Over 14.	Resident not over 5 years.
1908	173	120	53	21	152	148
1909	158	108	50	15	143	130
Total	331	228	103	36	295	278
1910	210	153	57	18	192	169
1911	319	256	63	17	302	240
1912	325	248	77	27	298	273
1913	910	773	137	47	863	816
1914	1,670	1,482	188	85	1,585	1,550
Total	3,434	2,912	522	194	3,240	3,048

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Under 14.	Over 14.
1908	5,509	3,848	1,661	1,001	4,508
1909	15,433	10,003	5,430	3,706	11,727
Total	20,942	13,851	7,091	4,707	16,235
1910	17,550	11,464	6,086	4,060	13,490
1911	18,465	12,167	6,298	4,094	14,371
1912	21,676	15,119	6,557	4,161	17,515
1913	10,044	5,586	4,458	3,001	7,043
1914	11,419	5,102	6,317	4,324	7,095
Total	79,154	49,438	29,716	19,640	59,514

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PACIFIC ISLANDER.

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Number illiterate.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	112	92	20	7	105	53	50.5	.....	.....
1901	24	20	4	1	23	5	21.7	.....	.....
1902	40	29	11	7	33	5	15.6	.....	.....
1903	52	46	6	3	49	3	6.6	.....	.....
1904	12	9	3	1	11	5	45.5	.....	.....
Total	240	196	44	19	221	71	32.4	.....	.....
1905	17	13	4	1	16	3	18.8	.....	.....
1906	13	10	3	1	12	6	50.0	.....	.....
1907	3	2	1	0	3	0	.....	.....	.....
1908	2	1	1	0	2	0	.....	0	0
1909	7	3	4	0	7	4	57.2	2	2
Total	42	29	13	2	40	13	32.5	2	2
1910	61	45	16	0	61	1	1.6	1	0
1911	12	7	5	2	10	0	.....	0	0
1912	3	2	1	0	3	0	.....	0	0
1913	11	8	3	0	11	0	.....	0	0
1914	1	0	1	0	1	0	.....	0	0
Total	88	62	26	2	86	1	1.2	1	0
Grand total	370	287	83	23	347	85	24.5	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Under 14.	Over 14.	Resident not over 5 years.
1908	7	3	4	3	4	7
1909	4	4	0	0	4	3
Total	11	7	4	3	8	10
1910	1	0	1	0	1	0
1911	1	1	0	0	1	1
1912	4	1	3	0	4	3
1913	4	3	1	2	2	4
1914	2	0	2	0	2	1
Total	12	5	7	2	10	9

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Under 14.	Over 14.
1908	−5	−2	−3	−3	−2
1909	3	−1	4	0	3
Total	−2	−3	1	−3	1
1910	60	45	15	0	60
1911	11	6	5	2	9
1912	−1	1	−2	0	−1
1913	7	5	2	−2	9
1914	−1	0	−1	0	−1
Total	76	57	19	0	76

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POLISH.

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Number illiterate.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	46,938	32,152	14,786	4,597	42,341	13,398	31.6	.....	.....
1901	43,617	29,581	14,036	4,520	39,097	14,670	37.5	.....	.....
1902	69,620	50,368	19,252	5,989	63,631	24,455	38.4	.....	.....
1903	82,343	58,992	23,351	7,761	74,582	23,946	32.1	.....	.....
1904	67,757	44,882	22,875	8,116	59,641	21,338	35.8	.....	.....
Total	310,275	215,975	94,300	30,983	279,292	97,807	35.0	.....	.....
1905	102,437	72,452	29,985	9,867	92,570	36,686	39.6	.....	.....
1906	95,835	66,410	29,425	8,941	86,894	32,235	37.1	.....	.....
1907	138,033	100,700	37,333	9,602	128,431	52,938	41.2	.....	.....
1908	68,105	43,667	24,438	7,818	60,287	24,380	40.4	15,072	9,308
1909	77,565	50,597	26,968	7,397	70,168	28,002	39.9	18,033	9,969
Total	481,975	333,826	148,149	43,625	438,350	174,241	39.7	33,105	19,277
1910	128,348	91,275	37,073	9,798	118,550	43,794	37.0	30,835	12,959
1911	71,446	42,339	29,107	7,691	63,755	22,940	36.0	13,064	9,876
1912	85,163	50,028	35,135	8,477	76,686	27,563	35.9	15,166	12,397
1913	174,365	115,772	58,593	17,253	157,112	51,636	32.9	32,905	18,731
1914	122,657	72,837	49,820	15,767	106,890	38,425	31.3	18,100	15,325
Total	581,979	372,251	209,728	58,986	522,993	179,358	34.3	110,070	69,288
Grand total	1,374,229	922,052	452,177	133,594	1,240,635	451,406	36.3	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Under 14.	Over 14.	Resident not over 5 years.
1908	46,727	39,148	7,579	1,757	44,970	40,353
1909	18,919	14,514	4,405	898	18,021	16,478
Total	65,646	53,662	11,984	2,655	62,991	56,831
1910	16,884	12,133	4,751	742	16,142	14,416
1911	31,952	25,808	6,144	1,138	30,814	27,619
1912	37,764	30,628	7,136	1,159	36,605	30,607
1913	24,107	18,886	5,221	701	23,406	18,770
1914	35,028	27,831	7,194	1,028	34,000	29,342
Total	145,735	115,289	30,446	4,768	140,967	120,754

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Under 14.	Over 14.
1908	21,378	4,519	16,859	6,061	15,317
1909	58,646	36,083	22,563	6,499	52,147
Total	80,024	40,602	39,422	12,560	67,464
1910	111,464	79,142	32,322	9,056	102,408
1911	39,494	16,531	22,963	6,553	32,941
1912	47,399	19,400	27,999	7,318	40,081
1913	150,258	96,886	53,372	16,552	133,706
1914	87,629	45,003	42,626	14,739	72,890
Total	436,244	256,962	179,282	54,218	382,026

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PORTUGUESE.

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Number illiterate.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	4,241	2,386	1,855	1,105	3,136	1,881	60.0	.....	.....
1901	4,176	2,240	1,936	1,030	3,146	2,007	63.8	.....	.....
1902	5,309	3,117	2,192	1,439	3,870	2,770	71.6	.....	.....
1903	8,433	4,999	3,434	2,072	6,361	4,657	73.2	.....	.....
1904	6,338	3,867	2,471	1,426	4,912	3,318	67.6	.....	.....
Total	28,497	16,609	11,888	7,072	21,425	14,633	68.3	.....	.....
1905	4,855	2,992	1,863	1,035	3,820	2,546	66.6	.....	.....
1906	8,729	5,096	3,633	1,821	6,908	4,682	67.8	.....	.....
1907	9,648	5,812	3,836	2,431	7,217	5,528	76.6	.....	.....
1908	6,809	4,019	2,790	1,697	5,112	3,315	64.8	2,020	1,295
1909	4,606	2,886	1,720	908	3,698	2,409	65.1	1,577	832
Total	34,647	20,805	13,842	7,892	26,755	18,480	68.1	3,597	2,127
1910	7,657	4,887	2,770	1,526	6,131	4,165	67.9	2,816	1,349
1911	7,469	4,843	2,626	1,238	6,231	3,736	60.0	2,510	1,226
1912	9,403	5,938	3,465	1,863	7,540	4,234	56.1	2,669	1,565
1913	13,566	8,696	4,870	2,301	11,265	6,972	61.9	4,566	2,406
1914	9,647	6,260	3,387	1,338	8,309	4,790	57.6	2,958	1,832
Total	47,742	30,624	17,118	8,266	39,476	23,897	60.5	15,519	8,378
Grand total	110,886	68,038	42,848	23,230	87,656	57,010	65.1	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Under 14.	Over 14.	Resident not over 5 years.
1908	898	633	265	50	848	635
1909	815	563	252	62	753	573
Total	1,713	1,196	517	112	1,601	1,208
1910	906	591	315	96	810	681
1911	1,388	927	461	111	1,277	911
1912	1,747	1,275	472	110	1,637	1,201
1913	1,583	1,128	455	105	1,478	1,067
1914	1,848	1,397	451	129	1,719	1,184
Total	7,472	5,318	2,154	551	6,921	5,244

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Under 14.	Over 14.
1908	5,911	3,386	2,525	1,647	4,264
1909	3,791	2,323	1,468	846	2,945
Total	9,702	5,709	3,993	2,493	7,209
1910	6,751	4,296	2,455	1,430	5,321
1911	6,081	3,916	2,165	1,127	4,954
1912	7,656	4,663	2,993	1,753	5,903
1913	11,983	7,568	4,415	2,196	9,787
1914	7,799	4,863	2,936	1,209	6,590
Total	40,270	25,306	14,964	7,715	32,555

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ROUMANIAN.

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Number illiterate.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	398	374	24	8	390	96	24.6	.....	.....
1901	761	704	57	23	738	274	37.1	.....	.....
1902	2,033	1,904	129	39	1,994	564	28.3	.....	.....
1903	4,740	4,472	268	78	4,662	1,001	21.5	.....	.....
1904	4,364	3,994	370	93	4,271	1,354	31.7	.....	.....
Total	12,296	11,448	848	241	12,055	3,289	27.3	.....	.....
1905	7,818	7,244	574	153	7,665	2,206	28.8	.....	.....
1906	11,425	10,561	864	201	11,224	4,072	36.3	.....	.....
1907	19,200	17,779	1,421	248	18,952	7,411	39.1	.....	.....
1908	9,629	8,478	1,151	304	9,325	3,610	38.7	3,171	439
1909	8,041	7,036	1,005	328	7,713	2,707	35.1	2,312	395
Total	56,113	51,098	5,015	1,234	54,879	20,008	36.4	5,483	834
1910	14,199	12,602	1,597	389	13,810	5,040	36.5	4,411	629
1911	5,311	4,228	1,083	365	4,946	1,648	33.3	1,327	321
1912	8,329	6,752	1,577	484	7,845	2,868	36.6	2,307	561
1913	13,451	10,373	3,078	992	12,459	4,385	35.2	3,198	1,187
1914	24,070	19,748	4,322	1,232	22,838	7,579	33.2	5,971	1,608
Total	65,360	53,703	11,657	3,462	61,898	21,520	34.8	17,214	4,306
Grand total	133,769	116,249	17,520	4,937	128,832	44,817	34.8	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Under 14.	Over 14.	Resident not over 5 years.
1908	5,264	5,008	256	39	5,225	4,970
1909	1,247	1,106	141	17	1,230	1,175
Total	6,511	6,114	397	56	6,455	6,145
1910	1,834	1,625	209	29	1,805	1,670
1911	5,230	4,790	440	70	5,160	4,904
1912	5,824	5,363	461	88	5,736	4,955
1913	3,156	2,811	345	52	3,104	2,432
1914	3,837	3,359	478	97	3,740	3,271
Total	19,881	17,948	1,933	336	19,545	17,232

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Under 14.	Over 14.
1908	4,365	3,470	895	265	4,100
1909	6,794	5,930	864	311	6,483
Total	11,159	9,400	1,759	576	10,583
1910	12,365	10,977	1,388	360	12,005
1911	81	−562	643	295	−214
1912	2,505	1,389	1,116	396	2,109
1913	10,295	7,562	2,733	940	9,355
1914	20,233	16,389	3,844	1,135	19,098
Total	45,479	35,755	9,724	3,126	42,353

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RUSSIAN.

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Number illiterate.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	1,200	886	314	245	955	274	28.7	.....	.....
1901	670	474	196	147	523	169	32.3	.....	.....
1902	1,551	1,225	326	235	1,316	451	34.3	.....	.....
1903	3,608	2,897	711	407	3,201	1,024	32.0	.....	.....
1904	3,961	3,018	943	429	3,532	920	26.0	.....	.....
Total	10,990	8,500	2,490	1,463	9,527	2,838	29.8	.....	.....
1905	3,746	2,700	1,046	591	3,155	1,026	32.5	.....	.....
1906	5,814	4,759	1,064	580	5,234	2,040	39.0	.....	.....
1907	16,807	15,095	1,712	740	16,067	7,145	44.5	.....	.....
1908	17,111	15,004	2,107	960	16,151	6,683	41.4	5,852	831
1909	10,038	8,794	1,244	377	9,661	4,031	41.7	3,461	570
Total	53,516	46,343	7,173	3,248	50,268	20,925	41.6	9,313	1,301
1910	17,294	14,918	2,376	1,102	16,192	6,224	38.4	5,172	1,052
1911	18,721	16,280	2,441	969	17,752	7,002	39.4	5,952	1,050
1912	22,558	19,464	3,094	1,043	21,515	8,482	39.4	6,939	1,543
1913	51,472	45,633	5,839	1,747	49,725	17,757	35.7	14,892	2,865
1914	44,957	38,010	6,947	2,143	42,814	14,905	34.8	11,751	3,154
Total	155,002	134,305	20,697	7,004	147,998	54,370	37.0	44,716	9,664
Grand total	219,508	189,148	30,360	11,715	207,793	78,133	37.6	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Under 14.	Over 14.	Resident not over 5 years.
1908	7,507	6,500	1,007	238	7,269	6,458
1909	4,112	3,380	732	232	3,880	3,653
Total	11,619	9,880	1,739	470	11,149	10,111
1910	5,682	4,675	1,007	292	5,390	4,112
1911	8,439	7,258	1,181	358	8,081	6,439
1912	9,744	8,588	1,156	345	9,399	8,124
1913	10,548	9,040	1,508	622	9,926	7,635
1914	17,491	15,615	1,876	592	16,899	14,963
Total	51,904	45,176	6,728	2,209	49,695	41,273

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Under 14.	Over 14.
1908	9,604	8,504	1,100	722	8,882
1909	5,926	5,414	512	145	5,781
Total	15,530	13,918	1,612	867	14,663
1910	11,612	10,243	1,369	810	10,802
1911	10,282	9,022	1,260	611	9,671
1912	12,814	10,876	1,938	698	12,116
1913	40,924	36,593	4,331	1,125	39,799
1914	27,466	22,395	5,071	1,551	25,915
Total	103,098	89,129	13,969	4,795	98,303

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RUTHENIAN.

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Number illiterate.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	2,832	1,942	890	216	2,616	1,282	49.0	.....	.....
1901	5,288	3,903	1,385	252	5,036	2,679	53.2	.....	.....
1902	7,533	5,836	1,697	300	7,233	3,609	49.9	.....	.....
1903	9,843	7,695	2,148	467	9,376	4,634	49.4	.....	.....
1904	9,592	6,904	2,688	549	9,043	5,325	58.9	.....	.....
Total	35,088	26,280	8,808	1,784	33,304	17,529	52.6	.....	.....
1905	14,473	10,820	3,653	661	13,812	8,652	62.7	.....	.....
1906	16,257	12,310	3,947	592	15,665	8,819	56.3	.....	.....
1907	24,081	18,451	5,630	731	23,350	13,044	55.8	.....	.....
1908	12,361	8,820	3,541	689	11,672	6,065	52.0	4,216	1,849
1909	15,808	10,863	4,945	961	14,847	7,608	51.2	5,326	2,282
Total	82,980	61,264	21,716	3,634	79,346	44,188	55.7	9,542	4,131
1910	27,907	21,198	6,709	1,063	26,844	13,623	50.7	10,716	2,907
1911	17,724	11,375	6,349	855	16,869	7,989	47.3	5,103	2,886
1912	21,965	13,121	8,844	1,255	20,710	9,104	43.9	5,254	3,850
1913	30,588	18,980	11,608	2,365	28,223	11,294	40.0	6,805	4,489
1914	36,727	23,590	13,137	2,690	34,047	13,047	38.6	8,503	4,705
Total	134,911	88,264	46,647	8,218	126,693	55,218	43.8	36,381	18,837
Grand total	252,979	175,808	77,171	13,636	239,343	116,935	48.9	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Under 14.	Over 14.	Resident not over 5 years.
1908	3,310	2,906	404	44	3,266	2,851
1909	1,656	1,379	277	35	1,621	1,447
Total	4,966	4,285	681	79	4,887	4,298
1910	1,719	1,375	344	41	1,678	1,514
1911	3,838	3,301	537	61	3,777	3,438
1912	5,521	4,721	800	109	5,412	3,981
1913	5,327	4,643	684	105	5,222	2,599
1914	5,049	4,164	885	144	4,905	3,841
Total	21,454	18,204	3,250	460	20,994	15,373

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Under 14.	Over 14.
1908	9,051	5,914	3,137	645	8,406
1909	14,152	9,484	4,668	926	13,226
Total	23,203	15,398	7,805	1,571	21,632
1910	26,188	19,823	6,365	1,022	25,166
1911	13,886	8,074	5,812	794	13,092
1912	16,444	8,400	8,044	1,146	15,298
1913	25,261	14,337	10,924	2,260	23,001
1914	31,678	19,426	12,252	2,536	29,142
Total	113,457	70,060	43,397	7,758	105,699

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SCANDINAVIAN (Norwegians, Danes, and Swedes).

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Number illiterate.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	32,952	19,530	13,422	2,422	30,530	271	0.9	.....	.....
1901	40,277	23,503	16,774	3,185	37,092	288	.8	.....	.....
1902	55,780	36,431	19,349	4,349	51,431	262	.5	.....	.....
1903	79,347	51,272	28,075	8,396	70,951	416	.6	.....	.....
1904	61,029	36,024	25,005	7,709	53,320	363	.7	.....	.....
Total	269,385	166,760	102,625	26,061	243,324	1,600	.7	.....	.....
1905	62,284	37,202	25,082	6,597	55,687	316	.6	.....	.....
1906	58,141	36,092	22,049	5,290	52,851	266	.5	.....	.....
1907	53,425	34,164	19,261	4,840	48,585	538	1.1	.....	.....
1908	32,789	18,251	14,538	3,727	29,062	348	1.2	219	129
1909	34,996	22,232	12,764	2,804	32,192	72	.2	33	39
Total	241,635	147,941	93,694	23,258	218,377	1,540	.7	252	168
1910	52,037	35,019	17,018	4,452	47,585	63	.2	33	30
1911	45,859	28,757	17,102	4,127	41,732	101	.2	54	47
1912	31,601	19,073	12,528	2,867	28,734	67	.2	37	30
1913	38,737	25,243	13,494	3,038	35,699	116	.3	70	46
1914	36,053	22,996	13,057	3,068	32,985	155	.5	111	44
Total	204,287	131,088	73,199	17,552	186,735	502	.3	305	197
Grand total	715,307	445,789	269,518	66,871	648,436	3,642	.6	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Under 14.	Over 14.	Resident not over 5 years.
1908	5,801	3,933	1,868	297	5,504	4,021
1909	3,106	1,905	1,201	146	2,960	2,342
Total	8,907	5,838	3,069	443	8,464	6,363
1910	5,032	3,514	1,518	315	4,717	1,913
1911	8,036	6,259	1,777	270	7,766	2,582
1912	10,380	8,009	2,371	313	10,067	3,478
1913	9,291	6,989	2,302	400	8,891	3,665
1914	8,073	5,511	2,562	353	7,720	3,665
Total	40,812	30,282	10,530	1,651	39,161	15,303

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Under 14.	Over 14.
1908	26,988	14,318	12,670	3,430	23,558
1909	31,890	20,327	11,563	2,658	29,232
Total	58,878	34,645	* 24,233	6,088	52,790
1910	47,005	31,505	15,500	4,137	42,868
1911	37,823	22,498	15,325	3,857	33,966
1912	21,221	11,064	10,157	2,554	18,667
1913	29,446	18,254	11,192	2,638	26,808
1914	27,980	17,485	10,495	2,715	25,265
Total	163,475	100,806	62,669	15,901	147,574

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SCOTCH.

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Number illiterate.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	1,757	1,055	692	284	1,473	31	2.1	.....	.....
1901	2,004	1,202	802	311	1,693	20	1.2	.....	.....
1902	2,432	1,497	935	379	2,053	25	1.2	.....	.....
1903	6,219	3,995	2,224	960	5,259	62	1.2	.....	.....
1904	11,483	7,023	4,460	1,923	9,560	56	.6	.....	.....
Total	23,895	14,782	9,113	3,857	20,038	194	1.1	.....	.....
1905	16,144	10,472	5,672	2,270	13,874	92	.7	.....	.....
1906	16,463	10,883	5,580	2,117	14,346	61	.4	.....	.....
1907	20,516	13,666	6,850	3,242	17,274	167	1.0	.....	.....
1908	17,014	10,209	6,805	3,035	13,979	199	1.4	127	72
1909	16,446	10,323	6,123	2,379	14,067	74	.7	50	24
Total	86,583	55,553	31,030	13,043	73,540	593	.8	177	96
1910	24,612	15,546	9,066	3,897	20,715	93	.4	60	33
1911	25,625	14,798	10,827	4,510	21,115	118	.6	59	59
1912	20,293	10,637	9,656	3,593	16,700	86	.5	47	39
1913	21,293	11,545	9,748	3,521	17,772	91	.5	43	48
1914	18,997	10,332	8,665	2,933	16,059	85	.5	37	48
Total	110,820	62,858	47,962	18,459	92,361	473	.5	246	237
Grand total	221,298	133,193	88,105	35,359	185,939	1,260	.7	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Under 14.	Over 14.	Resident not over 5 years.
1908	1,596	1,085	511	191	1,405	1,342
1909	903	515	388	82	821	784
Total	2,499	1,600	899	273	2,226	2,126
1910	1,992	1,322	670	167	1,825	1,075
1911	3,083	2,202	881	263	2,820	1,493
1912	3,456	2,300	1,156	325	3,131	1,933
1913	4,118	2,706	1,412	433	3,685	1,796
1914	3,923	2,484	1,439	358	3,565	2,118
Total	16,572	11,014	5,558	1,546	15,026	8,415

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Under 14.	Over 14.
1908	15,418	9,124	6,294	2,844	12,574
1909	15,543	9,808	5,735	2,297	13,246
Total	30,961	18,932	12,029	5,141	25,820
1910	22,620	14,224	8,396	3,730	18,890
1911	22,542	12,596	9,946	4,247	18,295
1912	16,837	8,337	8,500	3,268	13,569
1913	17,175	8,839	8,336	3,088	14,087
1914	15,074	7,848	7,226	2,580	12,494
Total	94,248	51,844	42,404	16,913	77,335

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SLOVAK.

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Number illiterate.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	29,243	21,235	8,008	2,159	27,084	7,563	27.9	.....	.....
1901	29,343	21,227	8,116	2,582	26,761	8,218	30.7	.....	.....
1902	36,934	27,197	9,737	3,005	33,929	8,788	25.9	.....	.....
1903	34,427	24,394	10,033	3,300	31,127	6,734	21.6	.....	.....
1904	27,940	18,502	9,438	3,336	24,604	6,861	27.9	.....	.....
Total	157,887	112,555	45,332	14,382	143,505	38,164	26.6	.....	.....
1905	52,368	38,038	14,330	4,582	47,786	11,984	25.1	.....	.....
1906	38,221	26,605	11,616	3,415	34,806	7,649	22.0	.....	.....
1907	42,041	28,951	13,090	3,766	38,275	8,231	21.5	.....	.....
1908	16,170	9,979	6,191	2,323	13,847	3,267	23.6	2,010	1,257
1909	22,586	16,168	6,418	2,145	20,441	4,035	19.7	2,924	1,111
Total	171,386	119,741	51,645	16,231	155,155	35,166	22.6	4,934	2,368
1910	32,416	23,642	8,774	2,787	29,629	6,393	21.6	4,757	1,636
1911	21,415	13,173	8,242	2,534	18,881	4,417	23.4	2,631	1,786
1912	25,281	15,639	9,642	2,997	22,284	4,144	18.6	2,586	1,558
1913	27,234	16,242	10,992	4,205	23,029	3,291	14.3	2,007	1,284
1914	25,819	15,009	10,810	4,232	21,587	2,455	11.4	1,495	960
Total	132,165	83,705	48,460	16,755	115,410	20,700	17.3	13,476	7,224
Grand total	461,438	316,001	145,437	47,368	414,070	94,030	22.7	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Under 14.	Over 14.	Resident not over 5 years.
1908	23,573	19,992	3,581	666	22,907	19,918
1909	8,861	6,749	2,112	317	8,544	7,339
Total	32,434	26,741	5,693	983	31,451	27,257
1910	9,259	6,872	2,387	390	8,869	7,424
1911	15,561	12,645	2,916	471	15,090	12,371
1912	12,526	10,139	2,387	361	12,165	9,084
1913	9,851	7,678	2,173	294	9,557	7,092
1914	11,786	9,406	2,380	366	11,420	8,675
Total	58,983	46,740	12,243	1,882	57,101	44,646

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Under 14.	Over 14.
1908	−7,403	−10,013	2,610	1,657	−9,060
1909	13,725	9,419	4,306	1,828	11,897
Total	6,322	−594	6,916	3,485	2,837
1910	23,157	16,770	6,387	2,397	20,760
1911	5,854	528	5,326	2,063	3,791
1912	12,755	5,500	7,255	2,636	10,119
1913	17,383	8,564	8,819	3,911	13,472
1914	14,033	5,603	8,430	3,866	10,167
Total	73,182	36,965	36,217	14,873	58,309

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SPANISH.

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Number illiterate.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	1,111	964	147	61	1,050	53	5.0	.....	.....
1901	1,202	1,072	130	105	1,097	152	13.9	.....	.....
1902	1,954	1,758	196	105	1,849	182	9.8	.....	.....
1903	3,297	2,738	559	282	3,015	273	9.1	.....	.....
1904	4,662	3,960	702	331	4,331	425	9.8	.....	.....
Total	12,226	10,492	1,734	884	11,342	1,085	9.5	.....	.....
1905	5,590	4,724	866	403	5,187	526	10.1	.....	.....
1906	5,332	4,460	872	378	4,954	443	8.9	.....	.....
1907	9,495	7,268	2,227	1,596	7,899	2,648	33.5	.....	.....
1908	6,636	5,489	1,147	581	6,055	899	14.8	733	166
1909	4,939	4,070	869	346	4,593	488	10.6	389	99
Total	31,992	26,011	5,981	3,304	28,688	5,004	17.5	1,122	265
1910	5,837	4,890	947	419	5,418	732	13.5	626	106
1911	8,068	6,405	1,663	913	7,155	1,209	16.9	1,014	195
1912	9,070	6,900	2,170	1,294	7,776	1,664	21.4	1,065	599
1913	9,042	7,240	1,802	926	8,116	1,482	18.3	1,079	403
1914	11,064	8,758	2,306	1,198	9,866	1,848	18.7	1,299	549
Total	43,081	34,193	8,888	4,750	38,331	6,935	18.0	5,063	1,852
Grand total	87,299	70,696	16,603	8,938	78,361	13,024	16.6	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Under 14.	Over 14.	Resident not over 5 years.
1908	1,977	1,696	281	124	1,853	1,585
1909	1,794	1,538	256	98	1,696	1,508
Total	3,771	3,234	537	222	3,549	3,093
1910	2,323	1,958	365	145	2,178	1,908
1911	2,518	2,234	284	99	2,419	1,981
1912	2,569	2,252	317	92	2,477	1,966
1913	3,181	2,692	489	134	3,047	2,349
1914	3,214	2,810	404	151	3,063	2,418
Total	13,805	11,946	1,859	621	13,184	10,622

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Under 14.	Over 14.
1908	4,659	3,793	866	457	4,202
1909	3,145	2,532	613	248	2,897
Total	7,804	6,325	1,479	705	7,099
1910	3,514	2,932	582	274	3,240
1911	5,550	4,171	1,379	814	4,736
1912	6,501	4,648	1,853	1,202	5,299
1913	5,861	4,548	1,313	792	5,069
1914	7,850	5,948	1,902	1,047	6,803
Total	29,276	22,247	7,029	4,129	25,147

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SPANISH-AMERICAN.

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Number illiterate.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	97	83	14	10	87	31	35.6	.....	.....
1901	276	200	76	49	227	41	18.1	.....	.....
1902	496	353	143	82	414	33	8.0	.....	.....
1903	978	691	287	150	828	208	25.1	.....	.....
1904	1,666	1,141	525	287	1,379	57	4.1	.....	.....
Total	3,513	2,468	1,045	578	2,935	370	12.6	.....	.....
1905	1,658	1,146	512	223	1,435	43	3.0	.....	.....
1906	1,585	1,105	480	270	1,315	28	2.1	.....	.....
1907	1,060	734	326	159	901	17	1.9	.....	.....
1908	1,063	752	311	167	896	31	3.5	20	11
1909	890	604	286	141	749	40	5.3	28	12
Total	6,256	4,341	1,915	960	5,296	159	3.0	48	23
1910	900	645	255	123	777	35	4.5	21	14
1911	1,153	747	406	169	984	23	2.3	12	11
1912	1,342	930	412	193	1,149	27	2.3	15	12
1913	1,363	978	385	203	1,160	17	1.5	5	12
1914	1,544	1,032	512	245	1,299	17	1.3	3	14
Total	6,302	4,332	1,970	933	5,369	119	2.2	56	63
Grand total	16,071	11,141	4,930	2,471	13,600	648	4.8	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Under 14.	Over 14.	Resident not over 5 years.
1908	333	228	105	34	299	286
1909	305	220	85	21	284	260
Total	638	448	190	55	583	546
1910	387	271	116	69	318	333
1911	374	278	96	32	342	298
1912	343	248	95	38	305	277
1913	457	310	147	52	405	368
1914	542	379	163	66	476	484
Total	2,103	1,486	617	257	1,846	1,760

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Under 14.	Over 14.
1908	730	524	206	133	597
1909	585	384	201	120	465
Total	1,315	908	407	253	1,062
1910	513	374	139	54	459
1911	779	469	310	137	642
1912	999	682	317	155	844
1913	906	668	238	151	755
1914	1,002	653	349	179	823
Total	4,199	2,846	1,353	676	3,523

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SYRIAN.

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Number illiterate.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	2,920	1,813	1,107	599	2,321	1,299	56.0	.....	.....
1901	4,064	2,729	1,335	798	3,266	1,834	56.2	.....	.....
1902	4,982	3,337	1,645	842	4,140	2,113	51.0	.....	.....
1903	5,551	3,749	1,802	952	4,599	2,471	53.7	.....	.....
1904	3,653	2,480	1,173	621	3,032	1,658	54.7	.....	.....
Total	21,170	14,108	7,062	3,812	17,358	9,375	53.9	.....	.....
1905	4,822	3,248	1,574	742	4,080	2,189	53.7	.....	.....
1906	5,824	4,100	1,724	886	4,938	2,707	54.8	.....	.....
1907	5,880	4,276	1,604	664	5,216	2,884	55.3	.....	.....
1908	5,520	3,926	1,594	746	4,774	2,611	54.7	1,648	963
1909	3,668	2,383	1,285	548	3,120	1,638	52.5	877	761
Total	25,714	17,933	7,781	3,586	22,128	12,029	54.5	2,525	1,724
1910	6,317	4,148	2,169	946	5,371	2,527	47.0	1,292	1,235
1911	5,444	3,609	1,835	673	4,771	2,315	48.5	1,354	961
1912	5,525	3,646	1,879	761	4,764	2,196	46.1	1,166	1,030
1913	9,210	6,177	3,033	1,341	7,869	4,134	52.5	2,363	1,771
1914	9,023	6,391	2,632	1,110	7,913	3,956	50.0	2,463	1,493
Total	35.519	23,971	11,548	4,831	30,688	15,128	49.3	8,638	6,490
Grand total	82,403	56,012	26,391	12,229	70,174	36,532	52.2	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Under 14.	Over 14.	Resident not over 5 years.
1908	1,700	1,355	345	53	1,647	1,034
1909	1,141	907	234	38	1,103	794
Total	2,841	2,262	579	91	2,750	1,828
1910	1,077	851	226	56	1,021	756
1911	1,173	951	222	64	1,109	794
1912	972	780	192	29	943	542
1913	797	616	181	30	767	409
1914	1,200	950	250	59	1,141	698
Total	5,219	4,148	1,071	238	4,981	3,199

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Under 14.	Over 14.
1908	3,820	2,571	1,249	693	3,127
1909	2,527	1,476	1,051	510	2,017
Total	6,347	4,047	2,300	1,203	5,144
1910	5,240	3,297	1,943	890	4,350
1911	4,271	2,658	1,613	609	3,662
1912	4,553	2,866	1,687	732	3,821
1913	8,413	5,561	2,852	1,311	7,102
1914	7,823	5,441	2,382	1,051	6,772
Total	30,300	19,823	10,477	4,593	25,707

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TURKISH.

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Number illiterate.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	184	174	10	16	168	126	75.0	.....	.....
1901	136	123	13	8	128	61	47.7	.....	.....
1902	165	151	14	11	154	52	33.8	.....	.....
1903	449	424	25	8	441	134	30.4	.....	.....
1904	1,482	1,412	70	43	1,439	572	39.7	.....	.....
Total	2,416	2,284	132	86	2,330	945	40.5	.....	.....
1905	2,145	2,082	63	45	2,100	1,273	60.6	.....	.....
1906	2,033	1,946	87	38	1,995	1,143	57.3	.....	.....
1907	1,902	1,855	47	18	1,884	1,263	67.0	.....	.....
1908	2,327	2,265	62	41	2,286	1,627	71.2	1,608	19
1909	820	781	39	33	787	480	61.0	469	11
Total	9,227	8,929	298	175	9,052	5,786	64.0	2,077	30
1910	1,283	1,237	46	21	1,262	814	64.5	788	26
1911	918	830	88	34	884	451	51.0	424	27
1912	1,336	1,256	80	25	1,311	672	51.3	642	30
1913	2,015	1,866	149	70	1,945	1,278	65.7	1,203	75
1914	2,693	2,591	102	47	2,646	1,688	63.8	1,650	38
Total	8,245	7,780	465	197	8,048	4,903	60.9	4,707	196
Grand total	19,888	18,993	895	458	19,430	11,634	59.8	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Under 14.	Over 14.	Resident not over 5 years.
1908	1,276	1,232	44	9	1,267	1,136
1909	698	673	25	4	694	628
Total	1,974	1,905	69	13	1,961	1,764
1910	1,058	1,006	52	18	1,040	878
1911	1,633	1,579	54	24	1,609	1,313
1912	1,366	1,332	34	6	1,360	1,011
1913	1,297	1,266	31	13	1,284	907
1914	890	861	29	8	882	690
Total	6,244	6,044	200	69	6,175	4,799

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Under 14.	Over 14.
1908	1,051	1,033	18	32	1,019
1909	122	108	14	29	93
Total	1,173	1,141	32	61	1,112
1910	225	231	−6	3	222
1911	−715	−749	34	10	−725
1912	−30	−76	46	19	−49
1913	718	600	118	57	661
1914	1,803	1,730	73	39	1,764
Total	2,001	1,736	265	128	1,873

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WELSH.

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Number illiterate.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	762	455	307	196	566	22	3.9	.....	.....
1901	674	391	283	113	561	28	4.1	.....	.....
1902	760	468	292	142	618	33	5.3	.....	.....
1903	1,278	836	442	253	1,025	39	3.1	.....	.....
1904	1,820	1,173	647	340	1,480	43	2.9	.....	.....
Total	5,294	3,323	1,971	1,044	4,250	160	3.8	.....	.....
1905	2,531	1,549	982	464	2,067	73	3.5	.....	.....
1906	2,367	1,660	707	297	2,070	30	1.4	.....	.....
1907	2,754	1,852	902	466	2,288	24	1.0	.....	.....
1908	2,504	1,651	853	436	2,068	37	1.8	24	13
1909	1,699	1,108	591	260	1,439	11	.8	6	5
Total	11,855	7,820	4,035	1,923	9,932	175	1.8	30	18
1910	2,244	1,504	740	359	1,885	14	.7	7	7
1911	2,248	1,471	777	322	1,926	22	1.1	17	5
1912	2,239	1,419	820	344	1,895	12	.6	2	10
1913	2,820	1,771	1,049	443	2,377	14	.6	6	8
1914	2,558	1,651	907	443	2,115	18	.9	8	10
Total	12,109	7,816	4,293	1,911	10,198	80	.8	40	40
Grand total	29,258	18,959	10,299	4,878	24,380	415	1.7	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Under 14.	Over 14.	Resident not over 5 years.
1908	163	108	55	21	142	120
1909	102	65	37	4	98	83
Total	265	173	92	25	240	203
1910	195	142	53	9	186	125
1911	255	202	53	17	238	144
1912	301	215	86	15	286	158
1913	238	231	67	11	287	139
1914	395	284	111	33	362	228
Total	1,444	1,074	370	85	1,359	794

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Under 14.	Over 14.
1908	2,341	1,543	798	415	1,926
1909	1,597	1,043	554	256	1,341
Total	3,938	2,586	1,352	671	3,267
1910	2,049	1,362	787	350	1,699
1911	1,993	1,269	724	305	1,688
1912	1,938	1,204	734	329	1,609
1913	2,522	1,540	982	432	2,090
1914	2,163	1,367	796	410	1,753
Total	10,665	6,642	4,023	1,826	8,839

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WEST INDIAN (other than Cuban).

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Number illiterate.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	78	56	22	4	74	4	5.4	.....	.....
1901	82	62	20	9	73	10	13.7	.....	.....
1902	137	92	45	17	120	5	4.2	.....	.....
1903	1,497	943	554	202	1,295	69	5.3	.....	.....
1904	1,942	1,123	819	232	1,710	40	2.3	.....	.....
Total	3,736	2,276	1,460	464	3,272	128	3.9	.....	.....
1905	1,548	892	656	187	1,361	38	2.8	.....	.....
1906	1,476	869	607	218	1,258	26	2.1	.....	.....
1907	1,381	778	603	179	1,202	20	1.7	.....	.....
1908	1,110	560	550	175	935	37	4.0	26	11
1909	1,024	591	433	142	882	38	4.3	31	7
Total	6,539	3,690	2,849	901	5,638	159	2.8	57	18
1910	1,150	634	516	206	944	32	3.4	18	14
1911	1,141	625	516	139	1,002	26	2.6	24	2
1912	1,132	590	542	115	1,017	30	2.9	24	6
1913	1,171	655	516	125	1,046	15	1.4	10	5
1914	1,396	818	578	150	1,246	34	2.8	26	8
Total	5,990	3,322	2,668	735	5,255	137	2.6	102	35
Grand total	16,265	9,288	6,977	2,100	14,165	424	2.9	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Under 14.	Over 14.	Resident not over 5 years.
1908	375	220	155	56	319	318
1909	375	199	176	36	339	320
Total	750	419	331	92	658	638
1910	388	222	166	55	333	292
1911	344	184	160	23	321	248
1912	530	277	253	36	494	369
1913	584	299	285	48	536	338
1914	677	361	316	52	625	398
Total	2,523	1,343	1,180	214	2,309	1,645

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Under 14.	Over 14.
1908	735	340	395	119	616
1909	649	392	257	106	542
Total	1,384	732	652	225	1,159
1910	762	412	350	151	611
1911	797	441	356	116	681
1912	602	313	289	79	523
1913	587	356	231	77	510
1914	719	457	262	98	621
Total	3,467	1,979	1,488	521	2,946

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OTHER PEOPLES.

WHOLE NUMBER ADMITTED.

Year.	Whole number admitted.	Male.	Female.	Under 14.	Over 14.	Number illiterate.	Per cent illiterate.	Male illiterate.	Female illiterate.
1900	149	106	43	29	120	8	6.6	.....	.....
1901	178	130	48	35	143	6	4.2	.....	.....
1902	267	266	1	9	258	31	12.0	.....	.....
1903	222	184	38	35	187	30	16.0	.....	.....
1904	697	559	138	65	632	173	27.4	.....	.....
Total	1,513	1,245	268	173	1,340	248	18.5	.....	.....
1905	356	292	64	22	334	51	15.2	.....	.....
1906	1,027	970	57	27	1,000	365	36.5	.....	.....
1907	2,058	1,954	104	58	2,000	930	46.5	.....	.....
1908	1,530	1,416	114	60	1,470	678	46.2	653	25
1909	1,537	1,446	93	59	1,478	853	57.7	802	51
Total	6,508	6,076	432	226	6,282	2,877	45.8	1,455	76
1910	3,330	3,243	87	44	3,286	1,873	57.0	1,839	34
1911	3,323	3,150	173	95	3,228	1,702	52.7	1,619	83
1912	3,660	3,335	325	151	3,509	1,602	45.7	1,502	100
1913	3,038	2,585	453	185	2,853	1,237	43.4	1,037	200
1914	3,830	3,553	277	92	3,738	1,693	45.3	1,621	72
Total	17,181	15,866	1,315	567	16,614	8,107	48.8	7,618	489
Grand total	25,202	23,187	2,015	966	24,236	11,232	46.4	.....	.....

NUMBER DEPARTED.

Year.	Number departed.	Male.	Female.	Under 14.	Over 14.	Resident not over 5 years.
1908	630	623	7	2	628	594
1909	533	515	18	10	523	500
Total	1,163	1,138	25	12	1,151	1,094
1910	806	749	57	19	787	643
1911	862	816	46	25	837	630
1912	1,113	1,088	25	7	1,106	910
1913	1,118	1,050	68	29	1,089	776
1914	1,470	1,423	47	15	1,455	1,072
Total	5,369	5,126	243	95	5,274	4,031

NET NUMBER ADMITTED.

Year.	Net number admitted.	Male.	Female.	Under 14.	Over 14.
1908	900	793	107	58	842
1909	1,004	929	75	49	955
Total	1,904	1,722	182	107	1,797
1910	2,524	2,494	30	25	2,499
1911	2,461	2,334	127	70	2,391
1912	2,547	2,247	300	144	2,403
1913	1,920	1,535	385	156	1,764
1914	2,360	2,130	230	77	2,283
Total	11,812	10,740	1,072	472	11,340

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CONTENTS.—Publications of associations—Educational history and biography—Current educational conditions—Educational theory and practice—Educational psychology: Child study—Special methods of instruction—Special subjects of curriculum—Kindergarten and primary school—Rural education—Secondary education—Teachers: Training and professional status—Higher education—School administration—School management—School architecture—School hygiene and sanitation—Physical training—Social aspects of education—Child welfare—Moral education—Religious education—Manual and vocational training—Vocational guidance—Agricultural education—Home economics—Professional education—Civic education—Military training—Education of women—Education of immigrants—Education of deaf—Exceptional children—Education extension—Libraries and reading—Bureau of Education: Recent publications—Bulletin of the Bureau of Education.

NOTE.

This office can not supply the publications listed in this bulletin, other than those expressly designated as publications of the Bureau of Education. Books, pamphlets, and periodicals here mentioned may ordinarily be obtained from their respective publishers, either directly or through a dealer, or, in the case of an association publication, from the secretary of the issuing organization. Many of them are available for consultation in various public and institutional libraries.

Publications intended for inclusion in this record should be sent to the library of the Bureau of Education, Washington, D. C.

PUBLICATIONS OF ASSOCIATIONS.

1439. **Michigan schoolmasters' club.** Journal . . . fifty-first meeting, held in Ann Arbor, March 29-31, 1916. Ann Arbor, Mich., Published by the Club. 182 p. 4°. (L. P. Jocelyn, secretary, Ann Arbor, Mich.)

Contains: 1. M. E. Cooley: Drawing instinct in primitive man, p. 8-12. 2. J. P. Haney: Art in harness, p. 12-17. 3. R. B. Farnum: The purpose of art instruction in American education, p. 18-24. 4. A. S. Whitney: Status of superintendents, principals and teachers of the high schools of Michigan, p. 25-43. 5. E. L. Miller: Latin inside and out, p. 44-51. 6. J. S. Brown: Applied high school chemistry for girls, p. 63-66. 7. H. E. Hammond: Physics for girls, p. 77-81. 8. L. H. Harvey: Revised report of the biology committee of the National education association on the reorganization of secondary education, p. 94-109. 9. E. D. Huntington: Discussion of report on elementary science situation, p. 109-13. 10. Ethel W. B. Chase: Preliminary report on the effect of junior college work upon the high school course in botany, p. 114-17. 11. C. O. Sauer: The condition of geography in the high school and its opportunity, p. 125-29. 12. J. P. Haney: Art teaching in high schools, p. 130-39. 13. E. C. Warriner: The building of school furniture by the manual training department, p. 144-50. 14. W. H. Clark: Building of school furniture by the manual training department, p. 150-53.

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1440. **Pennsylvania. University.** Schoolmen's week, April 12–15, 1916. Philadelphia, Pa., The University [1916] 312 p. 12°. (University bulletins, 16th series, no. 6, pt. 4. August 1916)

Contains: 1. A. J. Jones: Preparation of high school teachers in Pennsylvania, p. 24–36. 2. L. B. King: Normal schools and the preparation of teachers, p. 37–42. 3. Harlan Updegraff: Salaries of teachers in Pennsylvania, p. 43–57. 4. W. S. Hertzog: What the state normal schools should do for the preparation of teachers, p. 60–66. 5. F. P. Graves: What the universities and colleges should do for the preparation of teachers, p. 67–73. 6. F. E. Downes: What the city normal schools should do for the preparation of teachers, p. 74–78. 7. N. C. Schaeffer: Conditioning factors in the education and training of teachers, p. 80–84. 8. F. E. Baker: Discussion [on normal schools of Pennsylvania] p. 85–93. 9. Carmon Ross: Provision for retarded pupils in Pennsylvania in cities and towns of population of 2,500 and over, p. 118–32. 10. A. Wanner: Standardization of financial items in school records and reports, p. 136–44. 11. L. D. Coffman: Qualities of merit among teachers and rating schemes, p. 149–67. 12. A. S. Cook: Supervision as an essential feature of a county school system, p. 175–82. 13. J. J. Savitz: Supervision of rural schools in New Jersey, p. 183–93. 14. Lida B. Earhart: Some aspects of children's study in the elementary school, p. 204–209. 15. E. E. Wildman: General science course—its character and relation to the physical and biological science courses, p. 223–29. 16. A. F. West: The classics fundamental in liberal education, p. 243–63. 17. G. G. Chambers: The new admission requirements of the University and co-operation with secondary schools in their administration, p. 305–11.

EDUCATIONAL HISTORY AND BIOGRAPHY.

1441. **Cajori, Florian.** William Oughtred; a great seventeenth-century teacher of mathematics. Chicago [etc.] The Open court publishing company, 1916. 100 p. 12°.

1442. **Duggan, Stephen Pierce.** A student's textbook in the history of education. New York, Chicago, D. Appleton and company [1916] 398 p. illus. 12°.

Contains bibliographies.

1443. **Klatt, Albert G.** A brief survey of the events pertaining to education previous to the organization of Minnesota as a territory. School review, 24: 603–9, October 1916.

1444. **Macpherson, W. E.** The Ontario grammar schools. Queen's quarterly (Kingston, Canada) 24: 193–214, October–December 1916.

History of secondary education in Ontario. In the year 1871, the name of the old grammar schools was changed to "high schools." Latin was no longer compulsory, and boys and girls were admitted.

1445. **Stark, Herbert A.** Vernacular education in Bengal from 1813 to 1912. Calcutta review, no. 285: 239–81, July 1916.

Contains: Chapter VI, The Indian education commission of 1882. Chapter VII, The bearing of the recommendations of the Education commission on primary (vernacular) education in Bengal.

CURRENT EDUCATIONAL CONDITIONS.

1446. **Atteridge, A. Hilliard.** English education under war conditions. America, 16: 101–102, November 11, 1916.

How the war has affected elementary schools, higher schools, and professional schools.

1447. **Dewey, John.** Nationalizing education. American school, 2: 232–34, August 1916.

An address at the meeting of the National education association, New York, July 7, 1916.

"One of America's great educational leaders discusses the true nationalization of our educational system—how our public schools may help us realize our national ideal."

Also in Journal of education, 84: 425–28, November 2, 1916.

1448. **Hall, Edwin H.** Notes sur l'enseignement aux États-Unis. Revue internationale de l'enseignement, 36: 343–56, September–October 1916.

Lectures delivered in French universities during 1914–15 by the author under the auspices of the Harvard foundation. To be continued.

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1449. **Hauvette, Henri.** L'Union intellectuelle franco-italienne. Revue internationale de l'enseignement, 36: 357–63, September–October 1916.
Description of an association which has for its purpose the development of closer relations between France and Italy.

1450. **Kennedy, Joseph.** Educational progress. School education, 36: 3–4, November 1916.
Tells of the phenomenal progress in nearly all phases of educational development in this country during the last thirty or forty years.

1451. **Matheson, P. E.** Education to-day and to-morrow. Fortnightly review, n. s. 100: 614–21, October 1916.
Criticisms of English national education. Says that school studies must be kept liberal.

1452. **Rockford, Ill. Board of education.** A review of the Rockford public schools. 1915–1916. Issued by the Board of education, Rockford, Illinois. [Rockford, Ill., Rockford printing company, 1916] cover-title, 126 p. illus. 8°.

1453. **Sailer, T. H. P.** Some impressions of education in the far East. International review of missions (Edinburgh) 5: 541–51, October 1916.

1454. **Snyder, Morton.** Schools as a target for critics. Pittsburgh school bulletin, 10: 323–28, November 1916.
From the New York Times.
The objections to the experimental method in education and the value of this method.

1455. **Stearns, Alfred S.** Some fallacies in the modern educational system. Atlantic monthly, 118: 641–53, November 1916.
A reply to Abraham Flexner's "Modern school." Says that Mr. Flexner's theories are mostly based on "pure assumption," some are self-contradictory, many would prove wholly unworkable.

EDUCATIONAL THEORY AND PRACTICE.

1456. **Conklin, Edwin Grant.** Heredity and environment in the developmen of men. 2d ed. Princeton, Princeton university press; [etc., etc.] 1916. 550 p. illus. 8°. (Norman W. Harris lectures for 1914 at Northwestern university)
"References to literature": p. 509–18.

1457. **Craig, Anne Throop.** Instruction and construction. Atlantic educational journal, 12: 130–35, November 1916.
A plea for an education that will develop the individual's constructive ability.

1458. **Horne, Herman Harrell.** Story-telling, questioning, and studying. Three school arts. New York, The Macmillan company, 1916. 181 p. 12°.

1459. **Kitson, Harry D.** How to use your mind; a psychology of study; being a manual for the use of students and teachers in the administration of supervised study. Philadelphia and London, J. B. Lippincott company [1916] 216 p. 12°.

1460. **Lindsay, Samuel McCune.** The state and education. Teachers college record, 17: 311–29, September 1916.
Fourth in a series of addresses by various speakers on the basic principles which must underlie a system of education in a democracy.

1461. **Thwing, Charles Franklin.** Education according to some modern masters. New York, The Platt & Peck co. [1916] 296 p. 12°.
Contains chapters on education according to Emerson, Carlyle, Ruskin, John Stuart Mill, Gladstone, Matthew Arnold, J. H. Newman, and Goethe, with a final chapter of Summary and conclusion.

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1462. **Whipple, Guy Montrose.** How to study effectively. Bloomington, Ill., Public-school publishing co. [1916] 44 p. 16°.

"The best brief and practical treatment of the subject."—School review, November 1916, p. 702.

EDUCATIONAL PSYCHOLOGY: CHILD STUDY.

1463. **Conard, H. E.** *and* **Arps, G. F.** An experimental study of economical learning. American journal of psychology, 27: 507–29, October 1916.

Results of the Courtis tests in arithmetic applied to selected groups of high-school students.

1464. **Courtis, Stuart A.** Measuring the child's capacity. Normal instructor and primary plans, 26: 53–54, 82, November 1916; 45–46, December 1916.

The second and third of a series of three articles.

Limited to a single phase of one subject, namely, drill work in the four operations of arithmetic, but "the general principles involved are applicable to the teaching of spelling, writing, reading, and many other fundamental subjects." The final article is entitled "Educational diagnosis."

1465. **Dearborn, W. F.; Anderson, J. E.,** *and* **Christiansen, A. O.** Form board and construction tests of mental ability. Journal of educational psychology, 7: 445–58, October 1916.

"A color-form test, five form-board tests, a performance test, and a constructive test are described, and tentative norms are indicated for different ages. Plans are outlined for a graded series of construction tests."

1466. **Douglass, Aubrey Augustus** *and* **Dealey, William Learned.** Micromotion studies applied to education. [Worcester, Mass., 1916] cover-title, p. [241]–261. 8°.

Reprinted from the Pedagogical seminary, June 1916, vol. XXIII.

1467. **Graves, S. Monroe.** A study in handwriting. Journal of educational psychology, 7: 483–94, October 1916.

"The author secured 604 samples of handwriting from elementary school pupils under controlled conditions, and studied them to discover the relative value of methods which differ in such mechanical factors as slant, spacing, formation of letters, manner of holding the pen, and movement of the arm, hand, and fingers."

1468. **Haberman, J. Victor.** The intelligence examination and evaluation; a study of the child's mind. Second report. Part II. Psychological review, 23: 484–500, November 1916.

1469. **Hudelson, Earl.** Some achievements in the establishment of a standard for the measurement of English composition in the Bloomington, Indiana, schools. English journal, 5: 590–97, November 1916.

1470. **King, Irving** *and* **Gold, Hugo.** A tentative standardization of certain "opposites tests." Journal of educational psychology, 7: 459–82, October 1916.

"The object of the present study was to take certain lists of words which have been used by various experimenters for opposites tests, to give these tests under the best possible conditions, and to attempt to standardize a list or lists from which one may expect reasonably uniform results; and to standardize the grading of opposites tests by determining the words likely to be given as the opposite of each word, their frequency, and their relative value."

1471. **Leo,** *Brother.* The art of thinking. Catholic school journal, 16: 229–32, October 1916.

1472. **Lodge, Rupert Clendon** *and* **Jackson, Joseph Leonard.** Reproduction of prose passages. Psychological clinic, 10: 128–45, October 15, 1916.

Gives the results of tests given to students of the University of Alberta, in various classes.

1473. **Meredith, Christabel M.** The educational bearings of modern psychology. Boston, New York [etc.] Houghton Mifflin company [1916] 143 p. 12°. (Riverside educational monographs)

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1474. **Otis, Arthur S.** The reliability of spelling scales, involving a "deviation formula" for correlation. School and society, 4: 676–83, 716–22, 750–56, 793–96, October 28, November 4, 11, 18, 1916.

"The object of this study was to determine the criteria of merit in spelling scales and by this to judge the relative values of the Starch, Ayres, and Buckingham spelling tests."

1475. **Pitt, St. George Lane Fox.** The purpose of education; an examination of the education problem in the light of recent psychological research. New ed., with preface by Prof. Emile Boutroux. Cambridge, The University press, 1916. 144 p. 12°.

1476. **Smith, James H.** Individual variations in arithmetic. Elementary school journal, 17: 195–200, November 1916.

Results obtained from using Cleveland arithmetic tests on pupils of the elementary school of the University of Chicago. Purpose of study to determine some of the causes of individual variations in arithmetic and to note the effects of certain corrective exercises.

1477. **Stedman, Henry R.** Mental pitfalls of adolescence. Boston medical and surgical journal, 175: 695–703, November 16, 1916.

A scholarly and exhaustive study of *dementia precox*, which attacks with great frequency adolescents of marked intelligence and promise. Effects of over-study and poor nutrition discussed.

1478. **Thorndike, Edward L.** English composition; 150 specimens arranged for use in psychological and educational experiments. New York city, Teachers college, Columbia university, 1916. 127 p. 8°.

1479. **Woody, Clifford.** Measurements of some achievements in arithmetic. New York city, Teachers college, Columbia university, 1916. 63 p. diagrs. 8°. (Teachers college, Columbia university. Contributions to education, no. 80)

SPECIAL METHODS OF INSTRUCTION.

1480. **Goddard, H. N.** Laboratory teaching. School science and mathematics, 16: 710–19, November 1916.

Discusses the origin of laboratory work, specific application to laboratory methods, the greatest defect of present laboratory methods, pedagogy of the present plan, and improvement of present methods.

1481. **Haight, Harry W.** The case system of teaching hygiene in graded schools. Educational review, 52: 385–91, November 1916.

The writer says that the minds of young children in all grades of the public schools are mature enough so that the case system can be used with advantage. It is "the method of choice in teaching hygiene." The term comes from the practice of giving out case records for study and recitation rather than lectures or lessons from a textbook.

Continued from Educational review for May 1915.

1482. **Rosenberger, W. E.** The problem method in teaching history. Normal instructor and primary plans, 26: 33–34, 74, November 1916.

Shows how the problem method may be applied to the study of political history, economic and industrial history, and social history.

SPECIAL SUBJECTS OF CURRICULUM.

1483. **Beach, Frank A.** Music in the normal school. School music, 17: 21–27, September–October 1916.

Address before the Department of music education of the National education association, July 5, 1916.

1484. **Bovée, A. G.** French phonetic training in the University high school. School review, 24: 675–79, November 1916.

Contains tables of the French vowel-sounds and consonant sounds—alphabet of the Association phonétique internationale.

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1485. **Breslich, Ernst,** *and others.* Course of study in secondary mathematics in the University high school, the University of Chicago. School review, 24: 648–74, November 1916.

An elaborate exposition of the subject. Discusses the problem of mathematical reorganization along the lines of correlation.

1486. **Brown, Gladys Arthur.** Instrumental music in our public schools. Music supervisors' journal, 3: 12, 14, 16, 18, November 1916.

To be concluded in January issue.

A questionnaire was sent to 200 music supervisors inquiring (1) about their instrumental organizations and whether they give credit for the work, and (2) about crediting outside instrumental lessons. The results of this investigation are given.

1487. **Brown, Robert M.** Questioning in geography. Education, 37: 167–73, November 1916.

A plea for improving the art of questioning in geography. Discusses the various methods in vogue.

1488. **Coulter, John G.** Present tendencies in teaching elementary science. Educational review, 52: 357–71, November 1916.

A paper read before the Biology teachers' association of New York, March 3, 1916.

Discusses the two-year plan, the most conspicuous and influential example of which is the one embodied in the report of the biology committee of the National education association. What has been accomplished in New York.

1489. **Cushing, Sumner W.** High-school commercial geography. Journal of geography, 15: 87–91, November 1916.

Prepared for a Bulletin on commercial education to be issued by the Massachusetts Board of education.

1490. **Fillers, H. D.** A concrete investigation of oral and written errors in grammar. Texas school journal, 34: 11–15, October 1916.

1491. **Game, Josiah Bethea.** Teaching high-school Latin; a handbook. Chicago, Ill., The University of Chicago press [1916] 125 p. 12°.

Contains bibliographies.

1492. **Giles, F. M.** The teaching of commercial geography. School review, 24: 596–602, October 1916.

Discusses a line of development followed in the De Kalb Township high school, in the past four years, in working over the subject of commercial geography. Gives an outline for teaching commercial geography.

1493. **Gray, William S.** A study of the emphasis on various phases of reading instruction in two cities. Elementary school journal, 17: 178–86, November 1916.

Discusses the recent studies of reading made in connection with the Cleveland survey and the St. Louis survey. A comparison of the methods in vogue in the two cities shows "the need of additional emphasis on thoughtful mastery of the printed page on the part of Cleveland."

1494. **Highsaw, James Leonard.** Interscholastic debates in relation to political opinion. Quarterly journal of public speaking, 2: 365–82, September 1916.

This paper is an abstract of a thesis accepted by the University of Wisconsin Department of political economy for the degree of Master of arts.

Shows how the interscholastic high school debate influences political opinion.

1495. **Klapper, Paul.** The teaching of arithmetic, a manual for teachers. New York, Chicago, D. Appleton and company [1916] 387 p. 12°.

1496. **Leonard, Sterling Andrus.** The correction and criticism of composition work. English journal, 5: 598–604, November 1916

Address given before the National council of teachers of English, New York City, July 7, 1916. Adapted from chapters 3 and 4 of English composition as a social problem, in publication as a Riverside educational monograph.

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1497. **Little, Vivian Gray.** Music in schools and colleges. A ten-years' survey. A selected bibliography. Edited and expanded by Peter W. Dykema. Music supervisors' journal, 3: 7–10, November 1916.
To be continued.
This bibliography was prepared as a thesis in the library school of the University of Wisconsin in June, 1916.

1498. **Peet, Charles E.** Results of an investigation on the present status of high school physiography. School science and mathematics, 16: 702–709, November 1916.

1499. **Perkins, Albert S.** The Dorchester experiment in vocational Latin: a report of progress. Classical journal, 12: 131–44, November 1916.
Read before the annual meeting of the Classical association of New England, 1916.

1500. **Pinloche, A.** Faut-il supprimer l'allemand, ou quelle place lui donner? Revue de l'enseignement des langues vivantes, 33: 345–52, August–September–October 1916.
The author states that whether the German language is loved or not the knowledge of it is a necessity. He considers it from three points of view, the practical, pedagogic, and its value for "candidates."

1501. **Ripley, Frederick H.** Absolute music in the elementary school. School music, 17: 8–14, September 1916.
Address delivered before the Department of music education of the National education association, July 5, 1916.

1502. **Schütz, Marcel.** L'enseignement de l'allemand après la guerre. Revue de l'enseignement des langues vivantes, 33: 337–44, August–September–October 1916.
The author maintains that German should be taught in French schools not only because it is inoffensive but because even from a national standpoint it is useful, necessary, and indispensable.

1503. **Sears, Louis M.** Content and method in industrial history. School review, 24: 680–91, November 1916.

1504. **Smith, Myra A.** Debating problems in high school and college. Education, 37: 160–66, November 1916.
Writer says that the quality of the debating in intercollegiate contests has invariably improved since many of the colleges have dispensed with all faculty coaching.

1505. **Tryon, R. M.** Household manufactures in the United States: a quarter-century of developments. Elementary school journal, 17: 163–77, November 1916.
This article is Chapter 4 of a forthcoming work by the writer on the History of household manufactures in the United States, 1640–1860. Illustrates "the trend of modern historical studies toward a consideration of economic and social facts rather than toward a treatment of political occurrences as the sole content of history." To be continued.

1506. The war and the professor of literature. Unpopular review, 6: 367–80, October–December 1916.
Professors of literature as interpreters of the spirit of a nation.

KINDERGARTEN AND PRIMARY SCHOOL.

1507. **Hill, Mary D.** The educational values which the child carries over from the kindergarten into the primary grades. Kindergarten and first grade, 1: 371–75, November 1916.
Paper read at National education association convention, New York.

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1508. **Kready, Laura F.** A study of fairy tales. Boston, New York [etc.] Houghton Mifflin company [1916] xvii, 313 p. 12°.

Introduction by Henry Suzzallo, president of the University of Washington.

Presents a single *motif* of children's literature, Fairy tales, with the aim of organizing this small portion of the curriculum for the child of five, six, or seven years, in the kindergarten and first grade.

1509. **Montessori, Maria.** Education in relation to the imagination of the little child. Kindergarten-primary magazine, 29: 84–86, November 1916.

RURAL EDUCATION.

1510. **Virginia. University.** Rural life conference. Proceedings of the ninth Rural life conference, held at the University of Virginia summer school, July 17–21, 1916. Charlottesville, Va., University of Virginia press, 1916. p. 417–96. 8°. (Alumni bulletin of the University of Virginia, vol. 9, no. 4, August 1916)

Contains: 1. G. P. Mayo: The call of the mountains to the church and state, p. 421–30. 2. J. H. Binford: An ideal system of country schools, p. 440–47. 3. Miss Willie R. Young: The girl in the country, p. 462–64. 4. C. W. Thompson: Rural organization problems, p. 465–70. 5. J. T. Watts: The achievements of the country Sunday school, p. 476–79. 6. A. L. Hall-Quest: The personality of the teacher, p. 480–87. 7. W. M. Forrest: Bible courses for high school students, p. 492–96.

1511. **Grote, Caroline.** The Illinois rural school survey. Illinois teacher, 5: 48–51, November 1916.

Continued from October number, and still uncompleted. This section deals with methods of instruction and training of teachers.

SECONDARY EDUCATION.

1512 **Aldrich, F. R.** The distribution of high-school graduates in Kansas. School review, 24: 610–16, October 1916.

Writer says that the two main functions of the high schools in Kansas are to prepare the graduate to teach and to fit him to enter the liberal arts colleges.

1513. **Ayer, Fred C.** High school efficiency—how rated? School review, 24: 584–95, October 1916.

Gives in brief form a score card for school buildings and equipment. Presents a bibliography, p. 594–95; also an analytical outline of high-school efficiency. This paper was read at the University of Oregon conference, June 1916.

1514. **Churchill, Thomas W.** Making the high school democratic. School review, 24: 569–73, October 1916.

Discusses the newer ideals of education; extension of high school work among the masses. Considers the activities of the Washington Irving high school, New York city.

1515. **Griffin, Orwin Bradford.** The junior high school. Journal of education, 84: 399–402, October 26, 1916.

A topical outline dealing with the reasons for the junior high school, its advantages and organization.

1516. **Inglis, Alexander J.** The junior high school. Some principles affecting its organization and administration. Harvard teachers' association leaflet, 2: 1–9, October 1916.

Discusses (1) Principles arising out of the nature of the pupils, (2) Principles arising out of social demands, (3) Principles arising out of the means available.

1517. **Kohl, Clayton C.** The weaknesses of high school instruction. Bulletin of the High school teachers association of New York city, no. 63: 1–20, September 1916.

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1518. **Rutherford, W. E.** The junior high school. Oregon teachers monthly, 21: 149–51, November 1916.

Discusses the organization, course of study, teacher and material equipment of the junior high school.

1519. **Rynearson, Edward.** Socialization of the high school. School review, 24: 692–700, November 1916.

Says that the great need in our changing social life is "an equipment for the right use of leisure." Shows what the high school can accomplish in this direction. Discusses the subjects which should be included in the course of study, etc.

TEACHERS: TRAINING AND PROFESSIONAL STATUS.

1520. **Ayer, Fred C.** Training teachers of sex hygiene. Oregon teachers monthly, 21: 135–41, November 1916.

1521. **Chambers, Will Grant.** The professional school vs. the college in the training of secondary teachers. School and society, 4: 647–58, October 28, 1916.

The writer says that "a junior college course of two years followed by three years in a school of education would yield better results than a four years' college course followed by a graduate year in education."

1522. **Childs, Edward P.** The selection of teachers. American school board journal, 53: 17–19, 70–71, November 1916.

1523. **Church, Clarence C.** The rural teacher's opportunity for leadership. American schoolmaster, 9: 337–46, October 1916.

Gives suggestions of the large opportunities offered by the country school to teachers who have the knack and taste for leadership.

1524. **Corbett, Henry R.** Pensions for teachers. Northwest journal of education, 28: 106–108, November 1916.

Deals with the nature of teachers' pension funds and some of the general laws inherent in their operation.

1525. **Crabtree, James W.** The training of teachers for special branches. American schoolmaster, 9: 347–54, October 1916.

Address delivered before the general session of the National education association, in New York city, July 4, 1916.

1526. **Gray, A. A.** The teacher's home. Elementary school journal, 17: 201–8, November 1916.

Says that more married men teachers will go into the country schools if cottages are furnished. Eighty-two per cent of the rural teachers of Denmark are men. Shows what some of the states are doing in providing homes for teachers.

1527. **Guigue, Albert.** L'éducation pédagogique des intérimaires pendant la guerre. Revue pédagogique, 68: 103–41, August 1916.

A description of the means taken to continue the training of substitute teachers who, because of the vacancies created by the war, have been given positions before completing their normal courses.

1528. **Hall-Quest, Alfred L.** Scales for measuring personality and efficiency. Virginia journal of education, 10: 60–64, October 1916.

Gives the data by F. L. Clapp, the Ruediger and Strayer scale, the Elliott scale, the Illinois scheme, card of rating at the University of Illinois, and the Waterloo, Iowa, analysis of the teacher.

1529. **Henry, T. S.** Standards of "good form" in classroom teaching. School and home education, 36: 72–77, November 1916.

Discusses some of the more tangible aspects of "good form" in classroom instruction and, on the negative side, points out "certain practices which are generally considered as evidences of faulty technique."

1530. **High-school salaries.** School review, 24: 632–33, October 1916.

Tabulation of questionnaires on high-school salaries, furnished by M. G. Clark, superintendent of Sioux City schools, dated May 8, 1916.

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1531. **Johnston, Joseph H.** Teacher-rating in large cities. School review, 24: 641–47, November 1916.

Lays emphasis, in particular, on the new rating-forms just prepared for use in Boston, described as "the most elaborate scheme of teacher-rating yet devised in any school system."

1532. **Shurick, Edward Palmes.** The teacherage; a pamphlet of valuable information on rural school house construction. [Duluth, Minn., Shurick & Hansen company, 1916] 47 p. illus. (incl. plans) 4°.

1533. What teacher's like. Editorial comment, designed to call attention to a series of significant measuring scales here reproduced. Utah educational review, 10: 7–11, September–October 1916.

Gives the measuring scale of the Utah state department of education, the Institute for public service of New York city, and the measuring scale of Logan, Utah.

HIGHER EDUCATION.

1534. **Bentley, R. C.** The claims of collegiate teaching. School and society, 4: 685–94, November 4, 1916.

Sets forth "certain features of experiment persisted in and continuously modified through several years of work in a college-university course in secondary education."

1535. **Dealey, Hermione L.** The problem of the college sorority. School and society, 4: 735–40, November 11, 1916.

Gives the arguments for and against the college sorority, and in conclusion says that "Social progress has demonstrated the general wisdom of fair regulation in preference to elimination without adequate analysis of conditions."

1536. **Fletcher, Thomas.** The Department of school visitation. Texas school journal, 34: 19–22, September 1916.

The purposes, machinery, and work of the Department of school visitation of the University of Texas.

1537. **Hayden, Felix.** College dramatics. America, 16: 117–18, November 11, 1916.

Criticises the plays selected for college dramatics and the selections chosen for elocution contests.

1538. **Holliday, Carl.** The municipal university. American city, 15: 495–503, November 1916.

Treats of the origin, growth, theory and practice, and actual workings of the municipal university. Says that the city is the logical site for a great school, for it is in itself largely a university, with its libraries, museums, hospitals, art galleries, and great industries.

1539. **Hopkins, Ernest Martin.** The college of the future. School and society, 4: 609–17, October 21, 1916.

Address of the president of Dartmouth college, delivered on the occasion of his inauguration October 6, 1916.

1540. **Lovejoy, Arthur O.** The future of the Carnegie foundation. Nation, 103: 417–19, November 2, 1916.

Discusses the recommendations recently made by President Pritchett and published as Bulletin No 9 of the Carnegie foundation, entitled A comprehensive plan of insurance and annuities for college teachers.

1541. **Lowell, A. Lawrence.** Scientific study of education. Harvard alumni bulletin, 19: 58–62, October 19, 1916.

Address delivered at the semi-centennial of Carleton college, Northfield, Minn., October 15, 1916.

1542. **Lull, Herbert G.** Notes on the uncompleted work of a committee on freshman instruction. School review, 24: 574–83, October 1916.

Report of a committee appointed by the president of the University of Washington two years ago.

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1543. **Manuel, Herschel T.** Is the college "smoker" a worthy social institution? School and society, 4: 699–705, November 4, 1916.

In support of the negative of the question the writer says "first, with reference to the larger group smoking is unsocial; second, the cost of smoking is too great for the returns; third, public smoking tends to be unsanitary: fourth, smoking is unhygienic: fifth, the college smoker tends to spread and make permanent in the lives of students practices which are undesirable, and, finally, such an institution as the smoker is particularly out of harmony with the best ideals of that for which a college should stand."

1544. **Merry, Glenn N.** College plays in the United States. Quarterly journal of public speaking, 2: 383–96, September 1916.

Gives a list of plays produced in colleges and universities during the last five years, together with such information as publisher, classification, number of acts, number of stage settings, number of male and female characters, and the percentage of satisfaction which the play gave the community.

1545. **Musselman, H. T.** The place of a state university in the life of the state. Texas school journal, 34: 23–26, September 1916.

"The first place of a state university is to train the men and women who enter the professional walks of life, and the second and higher place is to discover and train the great leaders of life." A state university must also carry on some university extension work.

1546. **Oviatt, Edwin.** The beginnings of Yale (1701–1726). New Haven, Yale university press, 1916. xxxi, 456 p. illus. 8°.

1547. **Poole, Murray Edward.** A story historical of Cornell university, with biographies of distinguished Cornellians. Ithaca, N. Y., The Cayuga press, 1916. 227 p. 8°.

1548. **Seligman, E. R. A.** The real university. Educational review, 52: 325–37, November 1916.

Defines the university as an institution that endeavors to promote and to impart intellectual freedom; the university is "the emancipator." Says that "the university, through the liberation of the intellect, is humanizing mankind. . . . The imperious demand of the modern community that the university shall render public service and shall be in close touch with every phase of instructed social activity is clearly irresistible."

1549. **Spalding, H. S.** Endowment of men and endowment of money. Educational review, 52: 392–402, November 1916.

Discusses the standardization of colleges, etc. The case of the Catholic colleges.

1550. **Thwing, Charles Franklin.** The training of men for the world's future. New York, The Platt & Peck co. [1916] 89 p. 12°.

"The university desires through lasting and fundamental forces so to contribute to the future that the world shall become a condition in which righteousness, both intellectual and moral, shall rule."

SCHOOL ADMINISTRATION.

1551. **Baker, George M.** Financial practices in cities and towns below twenty-five thousand. American school board journal, 53: 23–25, November 1916.

To be continued.

"This article is the second installment of an important series of papers discussing financial practices of school boards in small cities and villages." Deals particularly with the school budget.

1552. **Kendall, C. N.** Meditation of a member of a board of education. School news, 6: 3–4, November 1916.

Gives the ideals and duties of a school-board member.

1553. Six months of school administration in Buffalo under the commission charter, prepared by the publicity committee of the Public education association. Journal of education, 84: 339–42, October 12, 1916.

1554. **Trusler, Harry R.** Rights of pupils in public schools. American school board journal, 53: 28–29, 66–67, November 1916.

One of a series of articles which will be published in book form.

Deals with the right to attend the public schools, segregation of pupils of different races, compulsory school attendance, and tuition.

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SCHOOL MANAGEMENT.

1555. **Brooks, E. C.** The value of home study under parental supervision. **Elementary school journal**, 17: 187–94, November 1916.

Results obtained in a study of the fourth, fifth, and sixth grades of the city schools of Durham, N. C. Writer concludes that when circumstances make "it impossible for the home to assist in the child's education some provision should be made in school to supply that deficiency without taking over permanently functions that naturally belong to the home."

1556. **Coffman, Lotus D.** Differentiated curriculums versus minimum essentials. American school, 2: 264–66, September 1916.

1557. **Du Shane, Donald.** The intermediate grades and departmentalization. Elementary school journal, 17: 151–62, November 1916.

Discusses the results of the departmentalization of the intermediate grades, based on observations made by the writer, on the opinions of departmental teachers, and on interviews with children of these grades. Second article of series.

1558. **Fishback, E. H.** Adapting the work of the seventh and eighth grades to the needs of the children and the community. Educator-journal, 17: 132–36, November 1916.

Gives the academic and manual arts courses which are given in the schools of Hackensack, New Jersey.

1559. **Iowa state teachers' association. Committee on elimination of subject matter.** Elimination of obsolete and useless topics and materials from the common branches. The positive program; being a report of a committee of the Iowa state teachers' association, November 1916. Pub. as an educational bulletin by the Iowa state teachers' association. [Des Moines, Iowa state teachers' association, 1916] 152 p. 8°.

On cover: Second report of the Committee on elimination of subject matter.
Outlined in Midland schools, 31: 70–72, November 1916, by G. M. Wilson, chairman.

1560. **Terry, H. L.** Tests and examinations. School and society, 4: 673–76, October 28, 1916.

Gives a few typical examination questions, shows how impracticable they are, and suggests other questions that might be used.

1561. **Wilde, Arthur H.** The principal's duty in improving instruction. School review, 24: 617–25, October 1916.

Maintains that it is impossible "to direct the instruction of the school unless the head of it has a voice in the selection of teachers. The principal, therefore, should take the initiative in filling all vacant instructorships in the high school."

SCHOOL ARCHITECTURE.

1562. **Minneapolis. Board of education.** A million a year; a five-year school building program, including discussion of some fundamental educational policies. Approved and ordered published by unanimous vote of the Board of education, city of Minneapolis. [Minneapolis] 1916. 90 p. illus. 8°. (Monograph no. 1. Series of 1916–17)

SCHOOL HYGIENE AND SANITATION.

1563. **Flannagan, Roy K.** The physical welfare of the child and the teacher. Virginia journal of education, 10: 55–58, October 1916.

From rural standpoint.
"Read before the section on 'Contagious diseases and the teacher' of the American schoo hygiene association, New York city, July 1916."

1564. **O'Shea, M. V.** Deformities due to school seats. Mother's magazine, 11: 17–18, November 1916.

Shows the necessity for adjustable desks and seats for school children.

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1565. **Rapeer, Louis W.** Standardizing lighting and ventilation in public schools. Journal of education, 84: 451–54, November 9, 1916.

1566. **Strong, Anne Hervey.** Some problems in the training of school nurses. Teachers college record, 17: 353–60, September 1916.

PHYSICAL TRAINING.

1567. **Philadelphia, Pa. Board of education.** A four years' course of study in physical training for boys' and girls' high schools. Mind and body, 23: 71–74, 104–108, 149–53, 222–24, 266–67, 319–22, April–November 1916.
In three parts: Part I, Determining principles; Part II, Physical training material for boys; Part III, Physical training material for girls.

1568. **Poos, E. A.** Physical activities for boys in secondary schools. American physical education review, 21: 415–22, October 1916.
Discusses equipment, time, instruction, recognition, floor work, apparatus work, and athletics.

1569. **Rapeer, Louis W.** Minimum essentials of physical education. American physical education review, 21: 423–27, October 1916.

1570. **Reseburg, Walter J.** More wholesome athletics. Journal of education, 84: 428–30, November 2, 1916.
The writer says that "athletic games present an ideal environment for the teaching of clean and honest living, and the athletic coach who is responsible directly for the discipline of the boys has here a vast field for action." Shows a number of ways in which the athletic coach can help to mould character.

1571. **Somers, Florence A.** The right kind of athletics for girls. Mind and body, 23: 304–309, November 1916.
Read at the convention of the American physical education association, Cincinnati, Ohio, April 1916.

SOCIAL ASPECTS OF EDUCATION.

1572. **Co-operative education association of Virginia.** Community league bulletin, giving plan of organization, constitution and by-laws, suggestions for the work of each committee. . . Issued jointly by state departments of health, education, highways, agriculture, dairy and food, charities and corrections, and Virginia polytechnic institute. Richmond, Davis Bottom, superintendent of public printing, 1916. 48 p. illus. 8°.

1573. **Wolfe, Albert Benedict,** *ed.* Readings in social problems. Boston, New York [etc.] Ginn and company [1916] 804 p. 8°.
Contains sections on Eugenics, Assimilation of the immigrant, Education of women, Education of the Negro, etc.

CHILD WELFARE.

1574. **Bayliss, Clara Kern.** Child labor laws in the United States. School news and practical educator, 30: 102–103, November 1916.
To be continued.
Gives some of the worst features of the laws.

1575. **National child labor committee.** Proceedings of the twelfth annual conference on child labor, Asheville, N. C., February 3–6, 1916. New York, National child labor committee, 1916. 78 p. 8°. (Child labor bulletin, vol. 5, no. 1, May 1916)

1576. **Walker, Julia Fried.** The home life of the child. Self expression in society. Colorado school journal, 32: 16–17, October 1916.
The necessity that the home teach the child obedience and the habit of work.

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MORAL EDUCATION.

1577. **Schneider, Herbert W.** Dualism in modern theories of moral education. Educational review, 52: 372–84, November 1916.

Decries the hopelessness of such theories in our present-day industrial democracy. He says this dualism in modern theories is medieval. "Most of our theories of moral education confine themselves either to instruction in ideas about morals, or to the assumption that character will somehow result from the instruction offered in the curriculum, regardless of whether the curriculum is directly and specifically related to moral action."

RELIGIOUS EDUCATION.

1578. **Catholic educational association.** Report of the proceedings and addresses of the thirteenth annual meeting, Baltimore, Md., June 26–29, 1916. Columbus, Ohio, Catholic educational association, 1916. 504 p. 8°. (Catholic educational association bulletin, vol. 13, no. 1, November 1916.) (Rev. F. W. Howard, secretary, 1651 East Main street, Columbus, O.)

Contains: 1. T. E. Shields: Some relations between the Catholic school system and the public school system, p. 51–62. 2. J. F. Fenlon: The state, p. 63–82. 3. C. B. Carroll: Educating to citizenship, or patriotism in education, p. 82–90. 4. Matthew Schumacher: [Standardizing Catholic colleges], p. 91–98. 5. J. W. Maguire: Why sociology should be taught in our Catholic colleges, p. 108–13; Discussion, p. 113–16. 6. I. A. Wagner: The place of general science in the curriculum, p. 116–22. 7. Brother Potamian: Astronomy—a plea for a neglected study, p. 122–28. 8. P. J. Downing: How much and how shall we study the style of the author in the class-room? p. 140–53. 9. C. J. Pernin: Scholasticism and pedagogy, p. 167–74; Discussion, p. 174–77. 10. J. H. Haaren: The Gary school plan, p. 223–30; Discussion, p. 230–40. 11. Brother Peter: To teach pupils to study: an end in elementary education, p. 241–51; Discussion, p. 251–60. 12. Brother Azarias: The accurate keeping of school records, p. 261–73; Discussion, p. 274–77. 13. A. F. Hickey: To train for the formation of good habits—a problem in school management, p. 277–84; Discussion, p. 284–88. 14. J. P. McNichols: To teach children to speak their mother tongue correctly, p. 288–96. 15. W. J. Fitzgerald: Classroom management, p. 299–311; Discussion, p. 311–12. 16. John Garvin: The lesson-plan, p. 313–27; Discussion, p. 327–34. 17. Madeleine A. Hallowell: The problem of feeble-mindedness, p. 335–49. 18. Albert Muntsch: Coeducation from a Catholic standpoint, p. 352–66; Discussion, p. 366–70. 19. W. F. Lawler: Practice schools and training classes for our young teachers, p. 370–75. 20. Brother Gordian: The necessity of essentials in elementary education, p. 387–94. 21. Sister M. Borgia: A visit to schools for the deaf in the United States and Canada, p. 418–38.

1579. **Barry, Sinclair.** On the education of boys. America, 16: 45–46, October 21, 1916.

The Catholic versus the secular college.

1580. **Cope, Henry Frederick.** The modern Sunday school and its present day task. New York, Chicago [etc.] Fleming H. Revell company [1916] 252 p. 12°.

1581. **Crafts, Wilbur Fisk.** Bible in schools plans of many lands; documents gathered and comp. for Council of church boards of education, 1914. Rev. and enl. ed., 1916. Washington, D. C., Illustrated Bible selections commission [1916] 192 p. 8°.

Bibliography: p. 128–130.

1582. **Heathcote, Charles William.** The essentials of religious education. Boston, Sherman, French & company, 1916. 290 p. 12°.

1583. **Iowa state teachers' association. Educational council.** Report of Committee on school credit for Bible study, religious instruction, and moral training. Des Moines, Iowa, Welch press, 1916. 16 p. 8°.

Chairman of committee: Arthur E. Bennett, Des Moines.

1584. **McConaughy, James; McConaughy, James L.** *and* **Bartow, Harry Edwards.** Sunday-school teaching and management; a first standard training course for Sunday-school workers and older pupils especially in smaller schools. Philadelphia, American Sunday-school union [1916] 199 p. 16°. (Green fund book no. 21)

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1585. **Shields, Thomas Edward.** The ultimate aim of Christian education. Catholic educational review, 12: 301-17, November 1916.

1586. **Virginia. State board of education.** Official syllabus of Bible study for high school pupils. Approved and authorized by the State board of education, Richmond, Va., August 29, 1916. Charlottesville, Va., Published by the University, 1916. 48 p. 8°. (University of Virginia record. Extension series, vol. 2, no. 1, September 1916)

MANUAL AND VOCATIONAL TRAINING.

1587. **National association of corporation schools.** Fourth annual convention. Addresses, reports, bibliographies and discussions. Pittsburgh, Pa., May 30 to June 2, 1916. Published by order of the Executive committee [1916] 804 p. 8°. (Lee Galloway, secretary, New York university, New York, N. Y.)

Contains: 1. Report of committee on special training schools, p. 85–133. 2. Report of committee on trade apprenticeship schools, p. 138–228. 3. Report of committee on public education, p. 233–62. 4. Report of committee on vocational guidance—Pt. I. The organic development of business, p. 278–301.—Pt. II. Suggested machinery, p. 302–63.—Pt. III. Appendices, p. 364–444. 5. Round table on vocational guidance, p. 445–67. 6. Report of committee on advertising, selling and distribution schools, p. 476–517. 7. Report of committee on retail salesmanship, p. 523–49. 8. Report of committee on office work schools, p. 556–653. 9. Report of committee on employment plans, p. 661–98. 10. Report of committee on unskilled labor, p. 741–68.

1588. **Apprentice school of the Lakeside press.** National association of corporation schools bulletin, 3: 33–41, November 1916.

Established to meet the requirements of both employer and employee—the advantages that have been gained.

1589. **Bennett, Charles A.** Vocational education in the city of Anderson, Indiana. Manual training magazine, 18: 81–89, November 1916.

"This is the first of several editorial articles which will appear from time to time on the work of selected schools and systems of schools in which vocational training or instruction in the manual arts has become an important factor."

1590. **Cant, R. McK.** Training for salesmanship. World's work (London) 28: 542–45, November 1916.

1591. **Currier, Walter Barron.** Practical art education. Industrial-arts magazine, 5: 469–72, November 1916.

1592. **Fleming, A. P. M.** *and* **Pearce, J. G.** The principles of apprentice training, with special reference to the engineering industry. London, New York [etc.] Longmans, Green and co., 1916. 202 p. 12°.

Bibliography: p. 196–197.

1593. **Griffith, Ira S.** Relative values in the manual arts. Manual training magazine, 18: 89–95, November 1916.

1594. **Haney, James Parton.** Industrial art at home and abroad. Pennsylvania school journal, 65: 156–59, October 1916.

1595. **Harrison, Frank.** Continuation schools for children of school age. School and society, 4: 617–24, October 21, 1916.

Shows the importance of further education for those who leave school early, and says that the continuation school is necessary for those entering industry early to supplement poor home training in morals, civic duty, and political rights.

1596. **Merchant, C. J.** The story of the Elmira vocational school. Industrial-arts magazine, 5: 478–81, November 1916. illus.

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1597. **New York (State) University. Division of agricultural and industrial education.** The manual arts in New York state, by Royal B. Farnum, state specialist in art education. Albany, The University of the state of New York, 1916. cover-title, 13 p. 23 pl. 8°. (University of the state of New York bulletin, no. 625)

1598. **Winslow, Leon Loyal.** Education through industrial arts. Ohio educational monthly, 65: 511–16, October 1916.
This paper was read before the Manual arts section of the Northwestern Ohio teachers' association, which met at Toledo on November 13th and 14th, 1915.

VOCATIONAL GUIDANCE.

1599. **Bonser, Frederick G.** The curriculum as a means of revealing vocational aptitudes. Education, 37: 145–59, November 1916.
A plea for vocational guidance. Writer says: "With the work of the whole public school shot through and through with vocational motives and life values, the identities between school activities and life activities will become so constant and clear that school work in itself may very largely become a process of vocational guidance."

1600. **Kitson, Harry D.** Interest as a criterion in vocational guidance. Educational review, 52: 349–56, November 1916.
Says that real vocational guidance does not commit a person inalienably to a single vocational possibility. It does not set limits upon his achievements, but encourages him to develop himself to the highest possible degree.

1601. **Seashore, Carl E.** Vocational guidance in music. Music supervisors' journal, 3: 18, 20, 22, 24, 26, 28, November 1916.
Deals with the music talent chart, music surveys in the public schools, the economic value of vocational guidance in music, etc.

1602. **Wheatley, W. A.** An outline of educational and vocational guidance adapted to the smaller centres. Journal of education, 84: 438–39, November 2, 1916.
Presented at Harvard university conference of high school principals, Cambridge, Mass., in June 1916.

1603. **Woolley, Helen T.** The mind of a boy: the future of experimental psychology in vocational guidance. Survey, 37: 122–25, November 4, 1916.
The writer says that the application of experimental psychology to vocational guidance is in a research phase. Describes the work of the Psychological laboratory of the vocational bureau in Cincinnati, which is an integral part of a vocation bureau in a public school system.

AGRICULTURAL EDUCATION.

1604. **Carris, Lewis H.** Vegetable gardening as a school project. Atlantic educational journal, 12: 146–51, November 1916.
Shows the relation of work in vegetable growing to other school subjects.

1605. **Dean, William Harper.** The all-American movement. The meaning of achievement. Mother's magazine, 11: 11–13, 79, November 1916.
Boys' and girls' club work.

1606. **Waugh, Frank A.** The agricultural college; a study in organization and management and especially in problems of teaching. New York, Orange Judd company, 1916. 260 p. 12°.

HOME ECONOMICS.

1607. **Kinne, Helen.** Equipment for teaching domestic science. 5th printing. Boston, Mass., Whitcomb & Barrows, 1916. 104 p. illus. 8°.

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PROFESSIONAL EDUCATION.

1608. **National league of nursing education.** Proceedings of the twenty-second annual convention . . . held at New Orleans, La., April 27 to May 3, 1916. Baltimore, Williams & Wilkins company, 1916. 357 p. 8°. (Effie J. Taylor, secretary, Johns Hopkins university, Baltimore, Md.)

Contains: 1. Katharine Tucker: The training school's responsibility in public health nursing education, p. 113–17. 2. Elizabeth Golding: What can the training school do to graduate better private duty nurses? p. 119–22. 3. Helen Cleland: Is it desirable to include training for executive positions in the three years course? p. 123–26. 4. E. M. Lawler: How much time should be allowed for specialization during the training school course? p. 127–40. 5. Sara E. Parsons: The training school prospectus and its educational possibilities, p. 171–74. 6. Isobel Fleming: Textbooks for nurses, p. 174–81. 7. E. J. Taylor: Why does the nurse in the general hospital need training for mental work? p. 195–204. 8. Ida J. Ansted: The problems and possibilities in state hospital training schools, p. 208–15. 9. Isabel M. Stewart: The teaching of home nursing and first aid, p. 229–52. 10. S. Lillian Clayton: The purpose and place of ethics in the curriculum, p. 252–56. 11. Rudolph Matas: Some educational problems of mutual interest to the physician and the nurse, p. 270–85. 12. Adelaide Nutting: Some ideals in training school work, p. 291–301.

1609. **Clark, Calvin Montague.** History of Bangor theological seminary. Boston, New York [etc.] The Pilgrim press [1916] xix, 408 p. illus. 8°.

1610. **James, Eldon R.** The law school and the practicing lawyer. American law school review, 4: 212–17, November 1916.

A paper read before the section of legal education of the American bar association, Chicago, Ill., August 30, 1916.

Discussed in full by H. V. Mercer, in same number of the Review, p. 217–22.

1611. **Longcope, W. T.** Mile-stones in medicine. Educational review, 52: 338–48, November 1916.

"The milestones of medicine," says the writer, "as of all the sciences, are marked by men's names, not by the actions of committees, of senates or of nations." Sketches briefly the history of medical research work.

1612. **Vold, Lauriz.** System of study for students under the case method of instruction. American law school review, 4: 194–201, November 1916.

Presents a program of study, etc.

1613. **Watt, Homer A.** The English department and the professional schools. Engineering education, 7: 73–89, October 1916.

CIVIC EDUCATION.

1614. **American political science association. Committee on instruction.** The teaching of government. Report to the American political science association. New York, The Macmillan company, 1916. 284 p. 12°.

Members of committee: C. G. Haines, chairman; J. Lynn Barnard, Edgar Dawson, W. L. Fleming, Mabel Hill, F. E. Horack, J. A. James.

MILITARY TRAINING.

1615. **Gignilliat, L. R.** Arms and the boy; military training in schools and colleges, its value in peace and its importance in war, with many practical suggestions for the course of training and with brief descriptions of the most successful systems now in operation. Indianapolis, The Bobbs-Merrill company [1916] 371 p. front., plates, plan. 8°.

1616. **Howe, Lucien.** Universal military education and service. The Swiss system for the United States. New York and London, G. P. Putnam's sons, 1916. xiii, 138 p. 12°.

Favors universal military education for the people of the United States, including students in schools and colleges.

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1617. Military training in the high school. School education, 36: 9–10, November 1916.

Discusses the wide extremes of opinion on the subject of introducing military training into the public schools, the value of drill, and the New York plan.

1618. Report of the Military training commission. School bulletin, 43: 31–34, October 1916.

Recommendations of the New York military training commission.

EDUCATION OF WOMEN.

1619. **Women's inter-collegiate association for student government.** A report of the conference . . . held at Western Reserve university, in November 1915. 38 p. 8°.

Gives rules and regulations of colleges in the Association in respect to attendance, dormitory regulations, penalties for theft, chaperon rules, etc.

1620. **Comstock, Sarah.** Your girl at school. Good housekeeping, 63: 43–44, 104, November 1916.

An illustrated article describing among other school activities training for wifehood and motherhood.

EDUCATION OF IMMIGRANTS.

1621. **Rockow, Lewis.** Americanization and the pillar of democracy. Education, 37: 174–83, November 1916.

Advocates a special training for teachers of our immigrant children. A knowledge of the social sciences is essential.

EDUCATION OF DEAF.

1622. **Pintner, Rudolf** *and* **Paterson, Donald G.** Measurement of the language ability of deaf children. Psychological review, 23: 413–36, November 1916.

1623. **Yearsley, Macleod.** Hearing tests in school children. Volta review, 18: 440–42, November 1916.

From the British journal of children's diseases, London, May 1916. Criticises the "set tests" of the school doctor. Praises the French method, known as the *leçon de silence*.

EXCEPTIONAL CHILDREN.

1624. **Claxton, P. P.** [Letter to the Editors] Van Leuven Browne national magazine (Detroit, Mich.), 5: 2, November 1916.

This letter comments appreciatively on the movement toward better governmental provision for the care and education of crippled children in the United States.

1625. **Fitts, Ada M.** How to fill the gap between special classes and institutions. Ungraded, 2: 1–8, October 1916.

Gives some suggestions of provisions that should be made for the feeble-minded, in respect to public school education and after-care.

1626. **Knox, Margaret.** How shall the children be selected for special classes? Ungraded, 2: 9–15, October 1916.

From the principal's point of view.

1627. **Patterson, M. Rose.** A study of the bright child in the school. Atlantic educational journal, 12: 68–74, October 1916.

This paper was prepared in connection with the Department of education, Teachers' college courses, Johns Hopkins university.

Treats the subject under the following headings: The bright child defined, contrast in treatment given the subnormal and the supernormal, the rights and values of the bright child, various plans for assisting the supernormal child in America and Germany, and a detailed study of the William Rinehart preparatory center no. 52, in Baltimore.

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1628. **Wallin, J. E. Wallace.** A program for the state care of the feeble-minded and epileptic. School and society, 4: 723–31, November 11, 1916.

Recommendations made by the Children's code commission of Missouri, concerning the care and education of the feeble-minded and epileptic.

EDUCATION EXTENSION.

1629. **National university extension conference.** Proceedings of the first conference held at Madison, Wis., March 10–12, 1915. Convened by the University extension division, the University of Wisconsin. 269 p. 8°.

Contains: 1. C. R. Van Hise: The university extension function, p. 7–24. 2. L. E. Reber: The scope of university extension and its organization and subdivision, p. 25–36. 3. W. D. Henderson: General education through extension, p. 39–48. 4. J. H. Miller: Agricultural education in extension, p. 53–59. 5. A. H. Melville: The field work in extension, p. 63–69. 6. W. H. Lighty: Correspondence-study teaching, p. 75–83. 7. J. C. Egbert: Class lecture instruction, p. 83–90. 8. G. L. Sprague: The need and the opportunity for vocational training through university extension, p. 97–106. 9. E. B. Norris: University extension and industrial education, p. 107–13. 10. W. H. Henderson: The training courses for industrial teachers, p. 113–16. 11. R. L. Lyman: The relation of extension departments to debating and discussion clubs: pedagogical considerations, p. 125–31. 12. R. V. Phelan: Social center promotion, organization, and administration, p. 140–44. 13. H. E. Dearholt: Health instruction, p. 164–71. 14. C. W. Votaw. University extension service in its relation to local, intellectual and spiritual leadership, p. 177–85. 15. J. L. Gillin: Permanent results in community welfare work, p. 185–90. 16. J. J. Pettijohn: University extension lyceum service, p. 225–37. 17. P. F. Voelker: The university chautauqua, p. 238–44. 18. W. H. Dudley: Cooperation in visual instruction, p. 244–50. 19. Nathaniel Butler: The university extension lecturer, p. 251–55. 20. R. G. Moulton: The humanities in university extension, p. 255–58.

LIBRARIES AND READING.

1630. **American library association.** Papers and proceedings of the thirty-eighth annual meeting . . . held at Asbury Park, N. J., June 26–July 1, 1916. Chicago, Ill., American library association, 1916. p. 111–578. 4°. (*Its* Bulletin, vol. 10, no. 4, July 1916) (George B. Utley, secretary, A. L. A. Executive office, Chicago, Ill.)

Contains: 1. A. E. Bostwick: How the community educates itself, p. 115–22. 2. W. W. Bishop: Leadership through learning, p. 155–61. 3. J. F. Hosic: The place of the school library in modern education, p. 210–13. 4. H. E. Legler: How the public library can help in developing effective high school libraries, p. 213–15. 5. Albert Shiels: The immigrant, the school, and the library, p. 257–63. 6. H. H. Wheaton: An Americanization program for libraries, p. 265–69.

1631. **Kerfoot, John B.** How to read. Boston and New York, Houghton Mifflin company, 1916. 297 p. 12°.

1632. **Moore, Annie E.** The use of children's initiative in beginning reading. Teachers college record, 17: 330–43, September 1916.

List of pictures, apparatus, and books used, p. 342–43.

BUREAU OF EDUCATION: RECENT PUBLICATIONS.

1633. State higher educational institutions of Iowa. A report of a survey made under the direction of the Commissioner of education. Washington, 1916. 223 p. (Bulletin, 1916, no. 19)

1634. State pension systems for public-school teachers; prepared for the Committee on teachers' salaries, pensions, and tenure of the National education association, by W. Carson Ryan, jr., and Roberta King. Washington, 1916. 46 p. (Bulletin, 1916, no. 14)

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1635. The social studies in secondary education. A six-year program adapted both to the 6–3–3 and the 8–4 plans of organization. Report of the Committee on social studies of the Commission on the reorganization of secondary education of the National education association. Compiled by A. W. Dunn. Washington, 1916. 63 p. (Bulletin, 1916, no. 28.)

1636. University training for public service. A report of the meeting of the Association of urban universities, November 15–17, 1915. Washington, 1916. 94 p. (Bulletin, 1916, no. 30)

1637. The Wisconsin county training schools for teachers in rural schools; by W. E. Larson. Washington, 1916. 40 p. plates. (Bulletin, 1916, no. 17)

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BULLETIN OF THE UNITED STATES BUREAU OF EDUCATION.[1]

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*No. 38. Education for the home—Part III. Colleges and universities. B. R. Andrews. 25 cts.
*No. 39. Education for the home—Part IV. Bibliography, list of schools. B. R. Andrews. 10 cts.
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No. 39. The training of elementary school-teachers in mathematics. I. L. Kandel.
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No. 49. Monthly record of current educational publications, December, 1915.
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No. 11. Monthly record of current educational publications, April, 1916.

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DEPARTMENT OF THE INTERIOR
BUREAU OF EDUCATION

BULLETIN, 1916, No. 37

THE COOPERATIVE SYSTEM OF EDUCATION

AN ACCOUNT OF COOPERATIVE EDUCATION
AS DEVELOPED IN THE COLLEGE OF ENGINEERING
UNIVERSITY OF CINCINNATI

By CLYDE WILLIAM PARK
ASSOCIATE PROFESSOR OF ENGLISH
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WASHINGTON
GOVERNMENT PRINTING OFFICE
1916

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LETTER OF TRANSMITTAL.

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION,
Washington, June 21, 1916.

SIR: The cooperative system of education in the Department of Engineering of the University of Cincinnati, begun 10 years ago, is, I believe, one of the most interesting and instructive experiments in education within recent years. The importance of the experiment is due to the fact that it is not only practical, but is also based on fundamentally correct principles of education, too often forgotten in school and college work. This experiment has been the subject of many newspaper and magazine articles and public addresses, but I believe no account of it has appeared so comprehensive as that given in the manuscript prepared by Clyde William Park, of the University of Cincinnati. I recommend, therefore, that this manuscript be published as a bulletin of the Bureau of Education.

Respectfully submitted.

P. P. CLAXTON,
Commissioner.

The SECRETARY OF THE INTERIOR.

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THE COOPERATIVE SYSTEM OF EDUCATION.

I. THE COOPERATIVE IDEA.

The cooperative course of the University of Cincinnati was not the product of an academic laboratory of pedagogical research; its origin was rather in an investigation of the actual working conditions of commercial engineering practice. At the time when the course was conceived, practical men were especially severe in their criticism of the graduates of engineering colleges. The old apprentice system had broken down under the strain of a complex industrial organization, and it seemed that the engineering colleges were making but little effective effort to supply the link between theory and practice. Many teachers of engineering felt that they had done their whole duty when they had taught a traditional body of theory and had seen to it that the student retained at least 70 per cent of his book knowledge until after the final examinations. A few instructors conceded the desirability of hitching theory and practice side by side, but did not believe that such an arrangement was feasible.

The plan usually considered, and frequently followed, for uniting practice with theoretical instruction was the installation of school shops. The objections to this plan, however, were so numerous as to discourage its general adoption. In the first place, if school shops were to be fully illustrative of actual practice, they would have to include miniature reproductions of electrical plants, foundries, structural iron works, machine shops, railroads, construction companies, chemical industries, and all the other vast and complicated machinery of the industrial world. To duplicate all these plants would, of course, be out of the question; and merely to represent a few typical processes would involve such tremendous expense that only a few institutions could afford the luxury. Moreover, even in the most heavily endowed colleges there was danger that the pay—and hence the quality—of the teaching force would suffer, because of the increased outlay needed for equipment. A further objection to school shops lay in the fact that they must inevitably fall behind the times in a few years. To remodel the shops and revise the shop courses frequently enough to keep pace with the swift progress of engineering development would be clearly impracticable. Neither

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did it appear feasible to put the school shops on a commercial basis and have the professors and students compete with business men engaged in actual production. From every angle the school shop appeared impracticable. Yet it was clear that a well-planned course in the practice of engineering would not only prepare the student better for his future work, but would also enable him to retain and understand a much larger proportion of his theory.

A solution of this vexing problem came to Prof. Herman Schneider in a curious way. One evening, as he was walking across the campus of an eastern university where he was teaching, he heard the answer in the blast of a Bessemer furnace at a neighboring steel plant. Instantly the idea appealed to him as perfectly simple and obvious. Here was something better than any conceivable school shop—a million-dollar laboratory, with unlimited possibilities for illustrating the applications of technical theory. In this plant many graduates of this same college would find employment, as others had done before them. Why should they not learn as students to translate their book knowledge into terms of industrial processes?

The idea was not enthusiastically received by members of the college faculty, to whom the plan was suggested. In so far as they considered the proposition, they were disposed to look upon cooperation between college and industry as impracticable, if not undesirable. Despite their skepticism, however, Prof. Schneider found his faith growing stronger as he considered more fully the possibilities of the plan. All about the college were industrial plants, to which graduates went for a two-year apprentice course upon the completion of their four years of school work. Why not combine the apprentice course and the school work into a six-year course? Then, instead of paying the school for shopwork, the students would be earning money at the same time that they were getting experience. This would enable many worthy young men to attend school who otherwise would be excluded. There would be a selection of men by tests in both theory and practice. Misfits would thus be avoided, and the best men could be developed for the work to which they were naturally adapted. The school would become a pure teaching college, since all practical experience would be obtained on commercial engineering work. A plan could be devised to coordinate theory and practice. The school could have one group of men while the shop had the other, and thus many more students could be accommodated with the same amount of equipment. The descriptive courses heretofore given by the sch could be eliminated and the school time devoted entirely to Young men could start at the bottom of practical work a by a selective process arrive upon graduation at positions of responsibility in the field of engineering. The school would perform with increased efficiency the functions for which it was intended, and the shop wou

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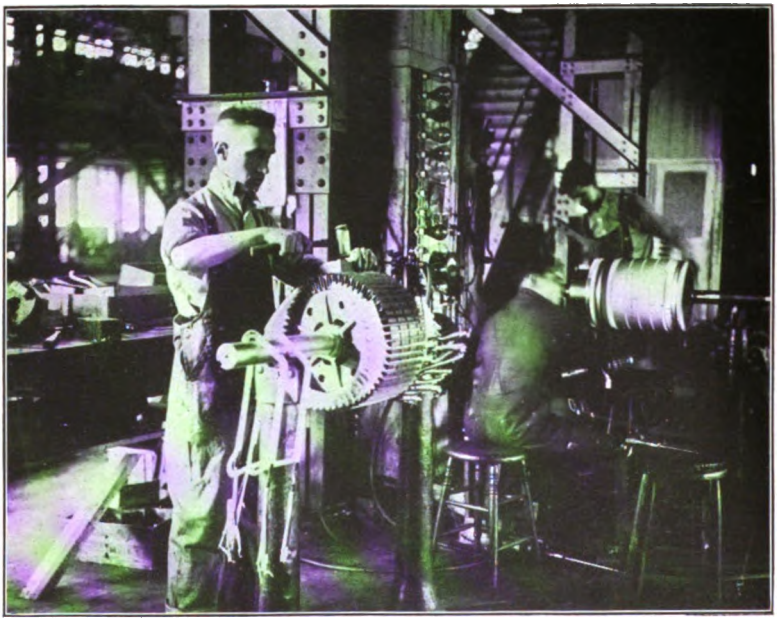
A. COOPERATIVE STUDENT IN A COMMERCIAL FOUNDRY.



B. ARMATURE ASSEMBLY.

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return to its proper but neglected function—the training of men by means of a thorough apprentice system. Even a stronger reason was found in the influence which the system would undoubtedly have upon the student's character. For developing industry, loyalty, and self-reliance, surely no plan could be devised that would be more effective. The arguments for cooperation seemed unanswerable, but the university men were unwilling to give the plan a trial.

In striking contrast to the skepticism and indifference of the college teachers was the attitude of a number of practicing engineers, who were next consulted. Almost without exception they received the idea hospitably and expressed their belief in its feasibility. They were also virtually unanimous in saying that their own theoretical training had meant little to them upon graduation, and that to review their theory when they needed it in practice had been a painful and discouraging process. Several engineers, including the chief engineer and the other officials of a large bridge corporation, volunteered their hearty indorsement of the cooperative plan, both as an educational and as a commercial proposition.

One or two things stood out prominently in these conferences with college teachers and with practical men. It was evident that the men who trained engineers and the men who used engineers were quite as far apart as they could get, and that it would not be easy to bring about an understanding between them. It was also clear that the most difficult task would be to induce the college men to undertake the educational experiment of cooperation.

II. THE EXPERIMENTAL PERIOD.

FIRST CLASS OF COOPERATIVE STUDENTS.

It was several years before Prof. Schneider found an opportunity to test the cooperative plan in actual practice. In the meantime, he had been called (in 1903) to the chair of civil engineering at the University of Cincinnati. During the first school year (1903–4), the retirement of the president precluded the submission of plans for the new course. The plan was presented to President Dabney soon after his appointment (in 1904), but because of the pressure of regular business he was unable for some time to consider any changes. In the fall of 1905, President Dabney approved the plan and presented it to the board of directors. After considerable discussion, the board authorized the introduction of the cooperative course on a small scale, to begin with the school year 1906–7.

While the educational aspect of the cooperative plan was under consideration by the university authorities, its practical application to local industries was taken up with numerous manufacturers, super-

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intendents, foremen, and engineers in Cincinnati. Most of these men showed interest and faith in the scheme as a general proposition; but when it came to adopting it as an actual business policy, some were chary of so radical an innovation. Typical of their objections to accepting cooperative apprentices were the statements that two men could not work alternate weeks at one machine, and that a crowd of "rah-rah" boys would disturb the shop organization. The latter objection coincided remarkably with the fear which had been expressed by some of the university instructors, that a group of "boiler makers" would destroy the scholastic atmosphere of an educational institution. By the end of a year of persistent interviewing, 12 concerns had agreed to try the cooperative system for 9 months—the college year. These firms offered employment to students in electrical and mechanical engineering courses.

The next problem was to find students who were willing to take the course. The matriculates who came to enter the regular four-year course could not be induced to try the new plan. One of the requirements adopted at the beginning was that a student who wished to enter the cooperative course in September must either spend the summer working in the shops or bring a recommendation from a firm with which he had had an equivalent amount of practical work. This requirement discouraged many prospective members of the first group of cooperative students, as it has in the case of all subsequent classes. In fact, the 28 young men who were finally enrolled chose the cooperative course solely for financial reasons. These students, however, did not last long under the strain of the preliminary shop-work. Ten hours of manual labor in hot weather and on equal terms with ordinary apprentices is a pretty severe test of a young man's stamina. On the first of September, when Dean Schneider returned from a month's vacation, he found that of the 28 men whom he had put to work in July all but 6 or 8 had quit. He then hurriedly recruited a class of young men who could not present the full 14 academic units required for admission, but who had had some practical experience and who gave evidence of fitness for engineering work. One of these students, now efficiency engineer for the Bell Telephone Co., in a Middle-West State, was admitted against the advice of his father and over the protests of three high-school principals, who had dismissed him as incorrigible. Notwithstanding their rather poor scholastic records, the members of this first class were on the whole a fairly promising group. At least, they knew what their work was to be and they seemed to catch the spirit of the new course.

The peculiar requirements of the cooperative course developed a new type of student. The "co-op.," as he was called, was alert, rugged, and independent. He was generally more serious than the "regular" student, but on occasion he displayed a sense of humor

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and a buoyancy which showed that, though he might be sobered by his practical work, he was not at all depressed by it. The difference lay rather in the fact that he had known the steadying influence of responsibility. Not only his personal advancement, but also the outcome of an important educational experiment, depended upon his success, and the realization of this fact seemed to give him a new sense of loyalty to his college and a determination not to disappoint those who had trusted him. It was inevitable, of course, that the "co-op." of the early days should be self-conscious. He was the center of interest in a great educational clinic, and the knowledge that he was constantly being analyzed, photographed, and written up gave him a feeling of aloofness from the rest of the student body. This feeling, doubtless, was largely responsible for his "class consciousness," for there never was a more clannish group than the members of the first cooperative class.

For a time the attitude of the other students was such as to enforce this exclusiveness. It is a pleasure, however, to record that the old animosity between the two groups of students has disappeared. The cooperative students and the others have found that they have a great many things in common and no essential differences. The very fact that their interests and experiences are in some respects unlike has made their association mutually beneficial. Community of interest, especially in athletic and social activities, has developed a wholesome university spirit. Evidence of the present solidarity is found in the prominent part taken by cooperative students in every kind of student activity. A "co-op." was president of the senior class in 1915, the captains of both football and basketball teams are "co-ops.," and in all the musical, social, and other organizations there is a large proportion of cooperative students. In view of recent developments, it would be hard for either group to understand that the "ostracism of the boiler makers" was once seriously considered.

DETAILS OF THE COURSE.

At the beginning the cooperative course extended over a period of six years, including alternate weeks at the university and in the shop for each school year, and a three-months period of full-time shopwork (excepting two weeks' vacation) during the summer. Each man had an alternate; so that the shopwork was continued by students of one section while those of the other section were in school. Under this arrangement, the theoretical instruction given in the regular four-year course was combined with the practical experience of a newly devised shop-apprentice course. Theory and practice were carefully graded and coordinated and the student's work was so planned as to familiarize him, first with the simpler, and later with the more complex problems of the plant in which he was employed.

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For example, in the course in electrical engineering, the first year's work was in the foundry; the next year and a half in the machine shop; the next two years in the commutator, controller, winding, erecting, and testing departments; and the remaining time in the drafting rooms. On the contract, which was signed in triplicate by the student, the firm, and the university, was a blank space to be filled in with the amount and character of the apprentice work. The details of shop and business experience were left to the dean and the head of a given department on the one hand and the superintendent of the factory on the other.

ATTITUDE OF THE COOPERATING MANUFACTURERS.

The attitude of the cooperating manufacturers, and their ideas of what was to be gained from the cooperative system, may best be stated by quoting from a paper presented by Mr. Charles Gingrich, M. E., of the Cincinnati Milling Machine Co., at the fifteenth annual meeting of the Society for the Promotion of Engineering Education, July 3, 1907. Mr. Gingrich said in part:

> The manufacturers of my city have for some time past been face to face with the very serious problem of getting the right kind of men. Our industries are diversified, including machine tool, steam pump, steam engine, and electrical shops. The machine-tool industry predominates. We are rapidly becoming known as the chief machine-tool manufacturing center of the country, but we need more technically trained men in the further development of this industry. It is our good fortune to have the University of Cincinnati centrally located among us. When it proposed to us Prof. Schneider's plan of a cooperative engineering course, the idea appealed at once to the business sense of each individual manufacturer. It promised us an immediate supply of boys of a much higher grade than those who take up the regular apprenticeship. It held out the prospect of our getting within a few years engineering graduates with practical shop experience.
>
> We have all tried to give a shop training to young men from the colleges, but it is never entirely successful. A man who has put in four years of his young manhood getting a university education can not get into the shop atmosphere, even if he does don overalls and work as a regular hand. Such men have passed beyond the age at which boys freely ask questions and learn quickly all those little details which are such an important part of the training and experience of shopmen. They feel that they can not afford to be laughed at. They do not want to expose their ignorance. Therefore they get at best only a superficial knowledge of what is going on inside the shop. I do not mean to imply that our shops are full of secrets, but I do want to emphasize the fact that they contain a vast number of things to be learned; that the only place to learn them is in the shops; and that the best way to do it is to start young and take plenty of time. The chief criticisms of modern technical education result from the fact that we try to take the shop into the school, whereas we should bring the school into the shop. The cooperative plan does bring the school into the shop.

GROWTH OF THE COOPERATIVE PLAN.

After the entire feasibility of the cooperative course had been proved by a year's trial, there remained the question of how rapidly the university could adjust itself to an increased enrollment and to

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a greater number and variety of industries. Plenty of students were now willing to enter the course. Over 400 inquiries from prospective students were received during the first year and a large proportion of those who inquired made formal application for admission. The scholarship records of the new applicants admitted were well above the usual requirements for college entrance, and some of the men who enrolled as first-year cooperative students had spent one year or more in academic work at other colleges. Many employers who had thought favorably of the plan, but had hitherto been reluctant to introduce it, no longer hesitated to ask for cooperative apprentices. The number of students who could be admitted, however, was limited by the crowded condition of classrooms and laboratories at the university and also by the policy of the engineering faculty. The acceptance of fewer students was favored, because it would permit a more careful selection of men and would afford a better opportunity to study the pedagogical and administrative details of the course.

By the end of the first four years of operation, which may be called the experimental period, the cooperative plan had been fully vindicated. It had shown itself to be adapted to a variety of courses, including civil, chemical, and metallurgical engineering, and to a range of industries from railroad construction to ink manufacturing. It had survived a panic and the ensuing industrial depression. The old theoretical objections, that two men could not alternate successfully at the same work, and that the "lag" on Monday mornings would be equally prohibitive at school and in the shop were disposed of once and for all by the answer that these difficulties were found not to exist in practice. If anything, "blue Monday" lost some of its proverbial languor, since the students came refreshed to each new task, with their wits sharpened by a change of surroundings and of occupation.

LESSONS OF THE EXPERIMENTAL PERIOD.

The experimental period served to teach a number of lessons, which suggested changes in the plan and operation of the cooperative course. First, the old apprentice course was too rigid to adapt itself readily to the varied and changing conditions of commercial production. It seemed advisable to abandon the ironclad contract, and modify the terms of a student's employment, so as to facilitate his being transferred from one kind of work to another when a change seemed desirable.

Then, in order to keep the proper emphasis on the instructional phase of a student's work, it seemed advisable to handle business questions through a special agency, and thus leave the members of the faculty free to consider primarily the educational value of the various kinds of shop experience.

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In the further development of coordination between theory and practice, there was need for careful selection and systematic analysis of the various types of work, in order to obtain for the student the greatest possible amount of educational content from his practical experience.

The six-year course seemed to be longer than necessary. By extending the alternate weeks of school and shop work through the summer terms, the same amount of theory could be given in five years of 11 months as in six 9-month periods. From the standpoint of the shops this would be more convenient, since it would do away with the necessity of providing summer shopwork for twice the usual number of men.

Although the general scheme of weekly alternation had proved successful, it appeared that two weeks would be a more satisfactory unit than one. This was particularly true in the case of railroad work and other work outside the city. It was found that the periodical readjustments were as easy for students who worked on a two-weeks basis as for the others. A comparison of the two units showed that, on the whole, fortnightly alternation was more desirable for both school and shop work.

A revision of the curriculum also seemed advisable, and several changes were considered, including the following: Purely descriptive material, it was decided, should be eliminated, in order to secure time for a deeper study of the fundamentals. Overlapping and closely related courses should be compared in detail to avoid duplications and omissions. The relation between prerequisite and advanced courses should be emphasized, and deficiencies in a student's preparation should be reported to his instructor in the prerequisite course. Provision should be made for the recall of grades in case the student failed to retain a working knowledge of a preparatory subject. The theoretical work of the first three years in all departments should agree as nearly as possible, and specialization should be left to the latter part of the course.

Since the combination of school and shop work tends toward the rapid elimination of the physically, mentally, and temperamentally unfit, the cooperative system is in itself selective. In view of the increasing number of applications, however, it seemed worth while to investigate the practicability of a preliminary test that would eliminate in advance as many as possible of the misfits. Accordingly, a study was begun to determine a basis of selection that would discover a man's fitness to enter the course and, also, if possible, his adaptability for a particular class of work.

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III. THE REORGANIZED SYSTEM.

Notwithstanding that the changes in the cooperative course were gradual and evolutionary, it is possible to cite a fairly definite date at which the experimental stage ends and the new period begins. Before the end of the school year 1910–11 the principal changes had been inaugurated.

ADAPTABILITY TO VARIOUS KINDS OF BUSINESS.

The keynote of the reorganized system was adaptability. In the industries represented by the various cooperating firms there was variety, change, life. It would not have been possible for these firms to adjust their operations in accordance with a rigid educational system imposed upon them from without; nor would it have been desirable, even supposing that the employers had philanthropically offered to surround the cooperative students with exceptionally favorable conditions. To have done this would have been to carry over into the industries the unrealities of the school shops; whereas, under the cooperative system, it was a fundamental requirement that the student's practical work should be done amid conditions of actual production. The school planned the courses, shifted the men, and otherwise continued to be the directing head, and in administrative details it adjusted itself to engineering practice. The reorganization of the course was simply a recognition of the need for a system that should be flexible without being desultory, and definite without being rigid.

BUSINESS ORGANIZATION.

In the administrative department the old form of contract was abolished and the only definite agreement made was upon a minimum rate of 15 cents an hour for all entering students. The way was opened for the immediate transfer of a student who, though unsuccessful in one branch of engineering practice, seemed worthy of a trial in some other department. Despite the fact that the proportion of misfits had been greatly reduced each year, this increase in the freedom with which changes could be made proved to be an important advantage. In order that the progress of a student might be more closely followed by those directly concerned with his school training, the business of making the transfers and planning a student's practical work was turned over to the heads of the civil, mechanical, electrical, and other engineering departments. To facilitate this work and to insure for the students the greatest degree of personal attention, each of the professors and instructors was assigned a special list of shops and a regular schedule for visiting them.

At the same time that the engineering professors were given full responsibility for the adjustment of shop and school work, they were relieved of the business details in the relations between students and employers. The commercial part of the work was placed entirely in the hands of a special field secretary in the dean's office. His

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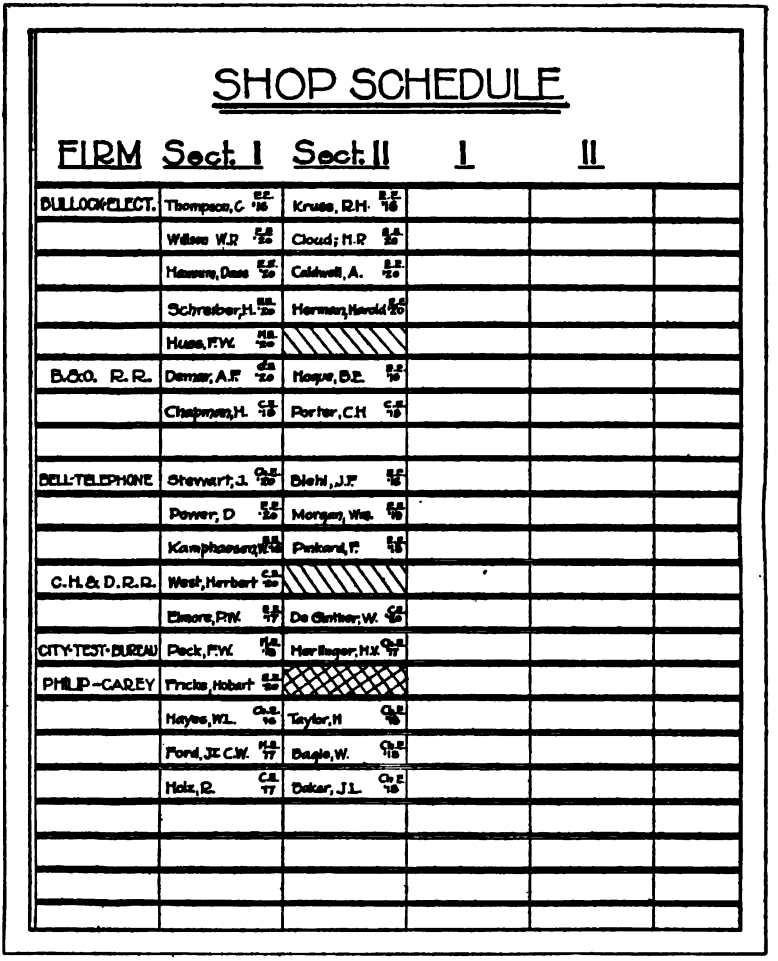
duties included opening negotiations with new firms, investigating complaints from students or employers, and adjusting wages and working conditions. It was also provided that through the field secretary should be made all promotions, transfers, substitutions of alternates, and other changes affecting the employment of cooperative students.

The university cooperates with almost 100 firms, representing the principal phases of construction, manufacture, and transportation.



SHOP SCHEDULE

FIRM	Sect. I	Sect. II	1		II
BULLOCK-ELECT.	Thompson, C E.E. '16	Kruse, R.H. E.E. '16			
	Wilson W.R C.E. '20	Cloud; M.R E.E. '20			
	Hansen, Dana E.E. '20	Caldwell, A. E.E. '20			
	Schreiber, H. Eln. '20	Herman, Harold E.E. '20			
	Huss, F.W. M.E. '20				
B.&O. R.R.	Demar, A.F. Gen. '20	Hogue, B.E. E.E. '19			
	Chapman, H. C.E. '18	Porter, C.H C.E. '18			
BELL-TELEPHONE	Stewart, J. Ch.E. '20	Biehl, J.F E.E. '18			
	Power, D E.E. '20	Morgan, Wm. E.E. '19			
	Kamphoefner, H. E.E. '20	Pinkard, F. E.E. '18			
C.H. & D.R.R.	West, Herbert C.E. '20				
	Elmore, P.W. E.E. '17	De Gruttner, W. C.E. '20			
CITY-TEST-BUREAU	Peck, P.W. M.E. '18	Harrlinger, H.X Ch.E. '17			
PHILIP-CAREY	Fricke, Hobart E.E. '20				
	Hayes, W.L. Ch.E. '18	Taylor, H Ch.E. '18			
	Ford, Jr. C.W. M.E. '17	Bagle, W. Ch.E. '18			
	Holz, R. C.E. '17	Baker, J.L. Ch.E. '18			

A partial list of industries reached by the cooperative system indicates something of the variety of experience which can be utilized in this way. Among the cooperating firms are four railroads, a traction company, a telephone company, a gas and electric company, rolling mills, structural iron works, consulting engineers, city, county, and Federal engineering departments, excavation and building contractors, and manufacturers of machine tools, automobiles, elevators, engines, bicycles and motorcycles, cash registers, fire engines, printing machinery, paper-making machinery, adding machines, roofing, ink, and soap.

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MAIN LABORATORY, ENGINEERING COLLEGE, UNIVERSITY OF CINCINNATI.

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A. TRACK REPAIR WORK, PENNSYLVANIA RAILROAD.

B. BRIDGE CONSTRUCTION, PENNSYLVANIA RAILROAD.

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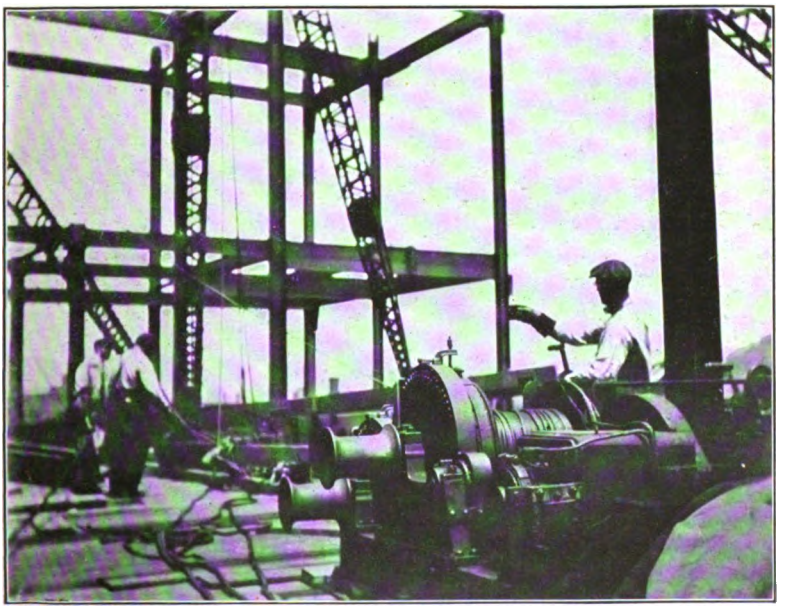
A. FOUNDRY WORK. WEIGHING UP THE CHARGE.



B. STEEL CONSTRUCTION WORK.

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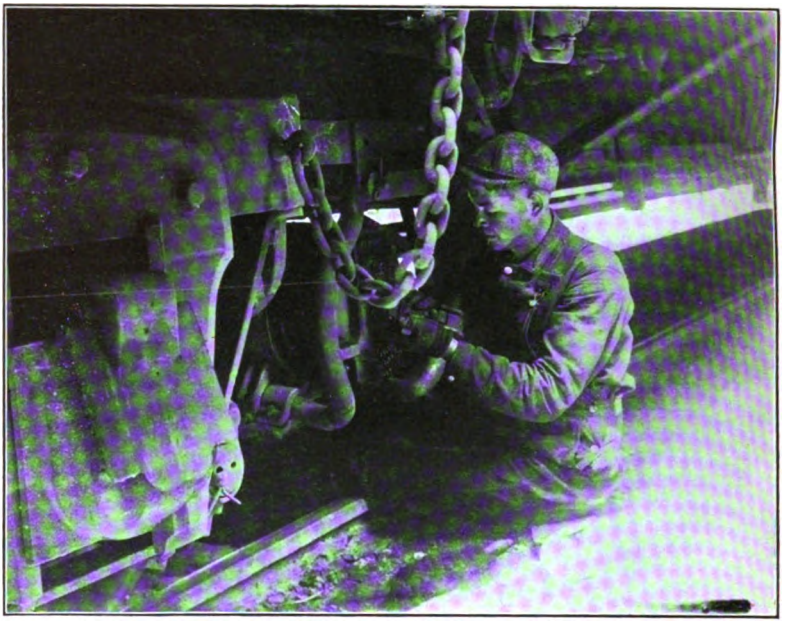
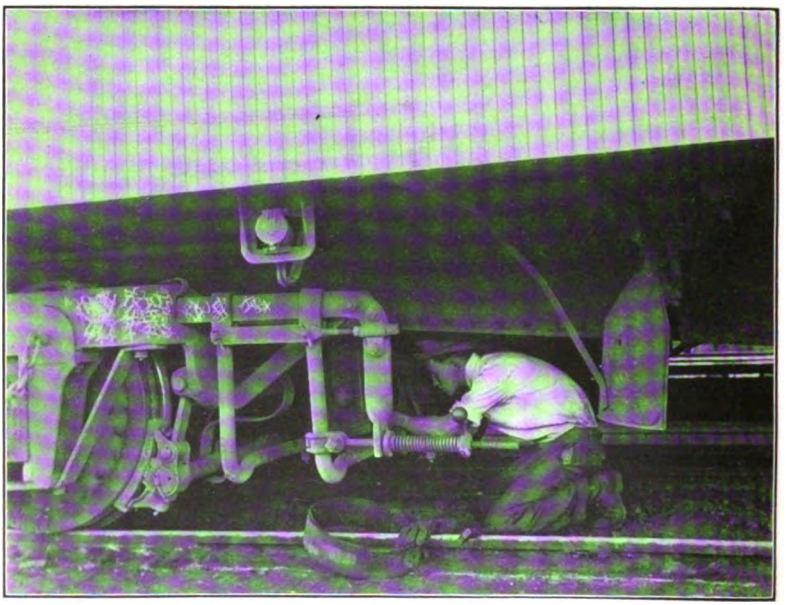


A. REPAIR OF CAR-LIGHTING EQUIPMENT, PENNSYLVANIA RAILROAD.



B. CAR REPAIR WORK, PENNSYLVANIA RAILROAD.

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SHOP SCHEDULE.

A complete list of cooperating firms, students employed, alternates, and other shop information is kept in the faculty room. In the typical section of a shop schedule given on page 16, the pairs of names under each firm are those of alternating students, who are designated as belonging to Section I and Section II, respectively. The spaces

SCHEDULE OF SHOP VISITS

FIRM	SECT. 1.	SECT. 2.	1.	2.	
Pearson Engine	Oct. 2'15	Oct. 16'15			
American Rail Mills Co.	Burns 9-29-15				
American Tool Wks.	Jenkins 9-30-15	Burns 10-12-15			
Ault-Wiborg Comp.	Jones 9-17-15 Burns 9-17-15				
Adams Fox Co.	Faig 9-27-15	Faig 10-7-15			
B. & O.	Browne 9-30-15				
Big Four	Browne 9-24-15 Burns 9-24-15	Burns 10-6-15 Browne 10-6-15			
Bell Telephone Co.	Wilson 9-18-15				
Brownell Co.	Faig 9-16-15				
Bullock Elec. Co.	Wilson 9-22-15	Wilson 10-13-15			
Cin'ti Milling Mach. Co.	Faig 9-22-15 Burns 9-22-15	Burns 10-14-15			
Cin'ti Traction Co.	Wilson 9-30-15				

marked with a single cross line indicate that no alternate is provided, and that none is desired. The space marked with double cross lines indicates that an alternate is wanted. Detachable cards are used, in order that the list may be easily revised and kept up to date.

SHOP VISITS.

The above schedule from the current records is typical of the shop visits made by various instructors in the technical departments. These visits are made at regular intervals on an established schedule.

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COORDINATION OF SCHOOL AND SHOPWORK.

Shop records.—With provision thus made for handling the business problems of the course, the work of the department of coordination, instead of dealing, as at first, with commercial problems, was developed from a purely pedagogical standpoint. The department became a clearing house for the practical applications of engineering theory and for the shop records of individual students. These records, kept on cards designed for the purpose, are filled out every two weeks, and a graphical summary of the data from the cards is made each semester. Examples of shop records for the short and the long periods are given below. By reference to the statements of experience, the department of coordination checks the thoroughness of a student's practical training and of his collateral instruction.

At the beginning of each school period the student enters on the semester card his experience for the shop period (two weeks) just closed.

WORK RECORD CARD.

NAME. *Binns, H. Stanley*	CLASS OF 1915.	SCHOOL YEAR ENDING AUGUST, 1915.	SEMESTER I.
FIRM. *Cincinnati Milling Machine Co.*			

WEEK ENDING	HOURS WORKED.	HOURS LOST.	DEP'T.	NATURE OF WORK DONE.
Sept. 19	49½	0	*Off.*	*Estimating milling operations.*
Oct. 10	49½	0	"	" " "
" *17*	49½	0	"	" " "
Nov. 7	49½	0	"	" " "
" *14*	49½	0	"	" " "
Dec. 5	40½	9 ex.	*Plan.*	*Time study work— Milling machine.*
" *12*	49½	0	"	" " " " "
Jan. 2	49½	0	"	" " " " "
" *9*	49½	0	"	" " " " "
" *30*	49½	0	"	*Working up time-study curves.*
TOTAL.	486	9	DEGREE, *M. E.*	ENTERED SEPT., 1910 — WAGES *Feb. 1, 1914,* RATE .22. RAISED *Nov. 14, 1914,* RATE .24.

On the sheet marked "Record of Cooperative Work" the records from each man's semester cards are compiled in a statement which, when completed, shows graphically his practical experience for the entire five years. The chief types of work are listed on different sheets, headed M. E., C. E., and so on, for the several departments. As shown in the record below, provision is also made for the statement of a man's previous experience and of his wages throughout the course.

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Instruction sheets.—A later undertaking by the department of coordination was an analysis of shop practice and the formulation of a set of instructions for each type of work. Appendix B contains excerpts from typical sets of instructions. Syllabi of this kind have been prepared for the principal types of work done by students, and additional sets of instructions are made out from time to time as they are needed.

Since the educational value of a machine or a piece of work is proportional to its complexity, or the amount of thought that has gone into it, the syllabi naturally vary in length and in disciplinary importance. It would be incorrect, however, to assume that the student may profitably spend upon each type of work only the amount of time required to master a set of instructions and problems dealing with a particular machine. It is often found worth while for him to remain longer, in order to become familiar with the arrangement and operation of the department in which his special work is included. Thus, because he can study the surrounding machinery, a student may be justified in operating a drill press longer than would be necessary for him to learn its simple mechanism. In a foundry his training need not be restricted to molding, core making, and pattern making. From the patterns and castings he will learn much about machine design, and he will naturally receive many ideas concerning foundry management. Timekeeping, inspecting, and other kinds of work which in themselves are comparatively simple may likewise afford such opportunities for observation as to make them very desirable from the standpoint of practical instruction and coordination. In all coordination outlines, emphasis is placed upon the incidental training which accompanies the various types of work.

Special kinds of work arise from time to time which can not be anticipated by any syllabus, but which may have greater instructional value than the regular tasks. For example, during the Ohio floods of 1913 some of the students in the civil engineering department suddenly found themselves face to face with problems and responsibilities far beyond their experience. They "made good," and incidentally learned many important things about railroad construction. At this time a similar opportunity came to the senior class in electrical engineering. The lighting system at Hamilton, Ohio, had been completely disorganized, and much of the equipment had been badly damaged by the flood. The students spent a week making repairs and, of course, working out the solutions for many practical problems in electrical engineering.

Inspection trips.—Apart from the varied forms of shop experience, an opportunity to learn by observation is provided by the inspection trips, which are made by all students during the school periods. These visits to representative engineering industries are carefully

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planned and graded with reference to the student's course and his progress. During the first year the trips include only the larger and more general phases of industry, and are made under the direction of the department of coordination. A typical list of plants visited in the first year is as follows:

1. The Cincinnati Water Works (pumping and filtration plants).
2. The Andrews Steel Co. (rolling mills).
3. The Jarecki Chemical Co. (sulphuric acid, commercial fertilizers, and alum).
4. The Hopple Street Viaduct (under construction).
5. The Cincinnati Milling Machine Co. (machine tools).
6. The Bullock Electrical Co. (electrical machinery).

Each trip is preceded by lectures on the type of plant to be visited, its layout, and its special engineering features. Wherever possible the trip is brought into relation with the student's regular class work. For example, the visit to the Jarecki Chemical Co.'s plant is made in connection with the discussion of the manufacture of sulphuric acid in the class in chemistry. A report of from 5 to 10 pages, including a sketch, is required of each student. All reports are written under the joint direction of the department of English and the technical department concerned.[1] The inspection trips made by upper-class men differ mainly in that they deal with more specific phases of industry, and that they are in charge of the several engineering departments.

Production engineering.—In the last two years of the course, special work is given in production engineering. A study is made of such phases of industry as management, routing of work, cost systems, location, organization, and operation of factories, contracts, specifications, and wage systems. In this course, which is given by the department of coordination, the student's experience during the first three years is utilized in giving him standards and methods of management.

REVISION OF THE COURSE.

Length and distribution of time.—While the various changes were under way in the shopwork and in coordination, the courses in theory were undergoing a corresponding reorganization. The change from a six-year to a five-year plan involved a consideration of the time which should be allotted to each subject, and this in turn raised the fundamental question of what the subject was intended to accomplish. In other words, why was it included in preference to other studies not in the curriculum? To satisfy themselves on this point, instructors began to analyze their courses and test the value of the subject matter in a scheme of engineering education. This analysis

[1] See p. 43.

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resulted in the elimination of a great deal of superfluous descriptive material and in a new emphasis on the fundamentals.

Changes in the curriculum.—Further criticism of the different courses was carried on by the faculty as a whole. In the weekly meetings an investigation was made of the object of each branch of study and of its relation to other subjects and to the entire engineering course. Reports of committees were followed by general discussion, with the result that every part of the curriculum which had no demonstrable value was omitted, new material was introduced, and the more important parts were strengthened. The ground was staked off anew, and many cases, both of overlapping and of deficiency, were remedied.

In order to check the related portions of prerequisite and advanced courses, the following form was designed for reporting deficiencies:

Name.....*J. E. Jones.* Date.....*1–3–15.*

To Dept. of *Math.*, from Dept. *E. E.*
Deficiencies: *Unable to perform integration to obtain average and effective e. m. f. for a sine wave.*

Remarks: *A discussion of average values by means of integrals would be of service to this department.*

Course *E. E.* .....
Signature of instructor.

The significance of this report depends naturally upon whether it represents an individual case or that of a number of students. If the former, it provides a reason for invoking the provisional credit rule—that is, to require the student to review the prerequisite subject. If the latter, it indicates to the instructor the need of greater emphasis on the mathematical process in which the deficiency is found to exist. In any case, it fixes the responsibility for the failure of students to have a working knowledge of prerequisite subjects.

The data collected during the analysis of courses were later brought together, and a uniform outline was adopted for the presentation of the object, method, and matter of each course. The outline given below is typical.

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UNIVERSITY OF CINCINNATI—COLLEGE OF ENGINEERING. SYLLABUS OF THE COOPERATIVE SYSTEM.[1]

Object.	Method.	Matter.	Mechanism.
TO PROVIDE ENGINEERING TRAINING FROM WHICH THE STUDENT SHALL ACQUIRE:			
1. A foundation in the basic principles of science.	1. Instruction in science and mathematics.	1. Chemistry, physics, mathematics, economics, biology, practical engineering projects.	1. Class and laboratory work; coordination with practical experience.
2. Ability to use these principles in practice.	2. Gradual and natural advancement in practical work which uses these principles.	2. An organized sequence in practical work.	2. Cooperation with commercial concerns doing engineering work.
	Concurrent training in the theory and practice of engineering.	An organized sequence in science.	Alternate periods spent by two groups of students at school and at practical work.
3. An understanding of engineering in general, as well as of one special department.	3. Varied exemplifications of theory in the classroom.	3. Experiences of students in different types of work correlated with theory.	3. Coordinators and students furnish illustrations.
	Organized visits to a variety of engineering industries.	Visits to waterworks, foundries, soap works, etc.	Organized shop visits.
	Contact with fellow students in different kinds of engineering work.		
4. A working knowledge of business forms and processes.	4. Instruction in economics, management, etc. Reports on shop visits; analysis of shop processes.	4. Fundamental principles of economics, systems, forms, contracts, patents in engineering work, etc.	4. Coordination of classroom work with students' experience.
	Practical experience in business forms and procedure.	Reports on organization and operation of waterworks, foundries, soap works, etc.	Practical training organized by coordinators to insure experience in business forms and processes.
		Routing of work in shops, time-keeping, rate-setting, cost-keeping, etc.	
5. A knowledge of men as well as of matter.	5. Personal work with men from laborers up to superintendents or managers.	5. Practical work, from laboring to directing.	5. Prearranged course of practical training.
	Instruction in the basic elements of work.	Fatigue, wage systems, employment methods, sanitation, etc.	
6. Drill and experience in the following essentials:			
a. Doing one's best naturally and as a matter of course.	a. By regulating promotion and pay on practical work.	a. Practical performance; classroom performance.	a. Constant supervision and criticism of student's practical work. Consultations by college officials on advancing students on jobs.

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	By maintaining a satisfactory standard in college work.		Internal coordination of college departments; conferences on work of students.
b. Prompt and intelligent obedience to instructions.	*b.* By working under the rules of an industrial organization.	*b.* Practical work under foremen.	*b.* Student is kept at manual labor until he learns to obey orders.
	By learning the reasons why things are done.	Using practical experience in science courses.	Coordination of theory and practice.
		Work syllabi.	Study of work syllabi.
c. Ability to command intelligently and with toleration.	*c.* By gradual rise to positions of responsibility in the cooperating companies.	*c.* Practical jobs of more and more authority and responsibility. Personal experience in hard work.	*c.* Success of student on practical and theoretical work checked by coordinators. Round table discussion in shop management courses.
	By courses dealing with conditions under which men work.	Fatigue, wage systems, employment methods, sanitation, etc.	
d. Accuracy and system.	*d.* By practical work which requires mental and manual accuracy, and which proceeds with a sequential orderliness. By insistence in school on accurate work and orderly methods of presentation.	*d.* Carefully selected jobs. Analyses of shop processes in class. All college courses.	*d.* Close familiarity with outside work through visits of coordinators. Coordination between departments to maintain standards.
e. Ability to write clearly and concisely, and to present technical matter interestingly before an audience.	*e.* By constantly requiring written work under criticism, and by requiring oral presentation of technical matter.	*e.* Reports on shopwork. Reports on shop visits. Laboratory reports. Student engineering society papers and discussions. Class practice under criticism.	*e.* Coordination of English department with other departments in criticizing all written work. Student engineering societies afford practice in oral presentation. Regular class exercises in presenting engineering reports.
7. Ability to meet social requirements easily.			
8. An appreciation of humanity's best achievements.			

[1] The objects listed in this syllabus, with slight differences in phrasing, were first stated by Dean Schneider, in 1902. The methods suggested in the original paper for accomplishing objects 7 and 8 have not been found feasible without certain features of mechanism obtainable only in colleges like those at West Point and Annapolis. However, new methods, matter, and mechanism for number 8 have been devised to meet the situation as it exists at Cincinnati, and these are now in the experimental stage.

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In the outline of the courses in chemistry which follows, the objects given in the first column are those agreed upon as common to all the courses, though in different cases the objects may vary in relative importance. For example, No. 4, which is the main object in English courses, is secondary in a course in chemistry. Methods differ more widely than objects, and manifestly subject matter is or should be entirely different in the various courses. In fact, one of the main reasons for making so extensive a survey of the curriculum was to avoid duplication of subject matter.

SYLLABUS OF COURSE IN CHEMISTRY.

Object.	Method.	Matter.
TO HAVE THE STUDENT ACQUIRE: 1. The fundamentals of the given subject.	1. Lectures experimentally illustrated, covering fundamental theories and laws, and the properties of the principal metals and nonmetals, especially those of industrial interest; occasional recitations with oral and written quizzes; experimentation in the laboratory to parallel the lecture course.	1. Not essentially different from subject matter given in good texts on general chemistry, except that practical applications of chemistry are emphasized; occurrence, properties, and uses of the principal metals and nonmetals; properties useful for identification; fundamental theories and laws.
2. A comprehension of the scientific method as exemplified in—(*a*) accurate observation; (*b*) classification and correlation; (*c*) logical reasoning.	2. Detailed study of groups of elements (e. g., the halogens, the alkali metals), leading to observation of similarities in properties, and subsequent classification into groups; simple problems permitting formulation of hypotheses and establishment of truth or falsity of these by experiment; enunciation of laws after examination of particular cases.	2. As under 1.
3. Mental self-reliance and initiative; *i. e.*, the ability to analyze a scientific problem and devise means of solution.	3. Problem work introduced early into the course and given increasing prominence until the summer term, when it is pursued exclusively; simple problems in synthesis and analysis assigned or suggested by student who proposes the method of attack; does all necessary library reading and carries to completion a process of chemical manufacture—for example, making a pound of baking powder; instructor assumes rôle of critic and interferes as little as possible with course of work.	3. Individual problems in synthesis and analysis of commercially valuable products; ores—identification, valuation, and subsequent working up for useful products—e. g., alum from bauxite, salts of iron, copper, barium, etc., from their ores; products used in laboratory; blue print papers, boiler water, soaps, baking powders, driers, paints, coal, inks, foods, etc.
4. Habits of neatness in student's work, and clear, concise, accurate expression, both oral and written.	4. Written work, in order to be accepted, must meet a prescribed standard of excellence; faulty oral expression corrected.	4. Instruction in the writing of reports and in the arrangement of chemical data; models, specifications, and criticism; given in connection with the department of English.
5. The connection of the given subject with the other subjects in the curriculum and with the profession of engineering.	5. Constant correlation of subject of lectures with practical engineering; e. g., oxidation in connection with generation of power (combustion of coal).	5. Illustrative material for lectures and problems; refers largely to local industries in which the principles under discussion are practically applied.

Because of the numerous changes in distributing and handling the subjects themselves, the reorganization made a much greater change in the cooperative course than is suggested by a comparison of curricula in the earlier and later periods. Omission of certain details, and a change of emphasis on others, constituted the principal features of

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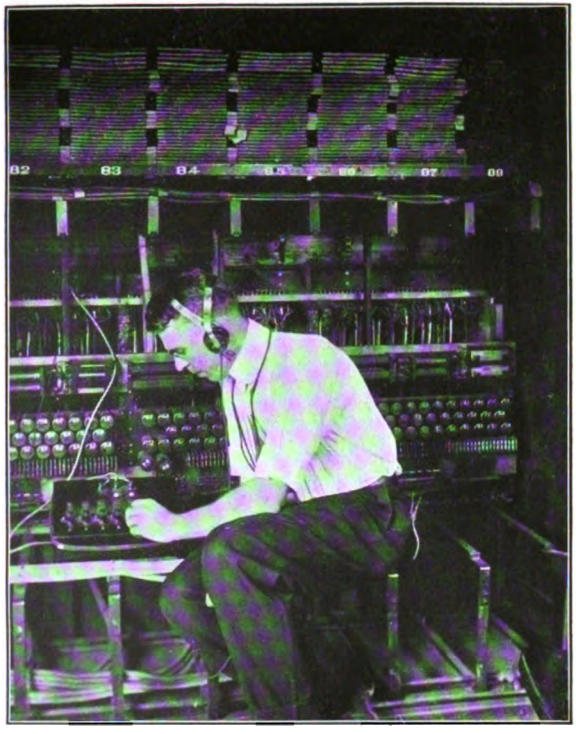
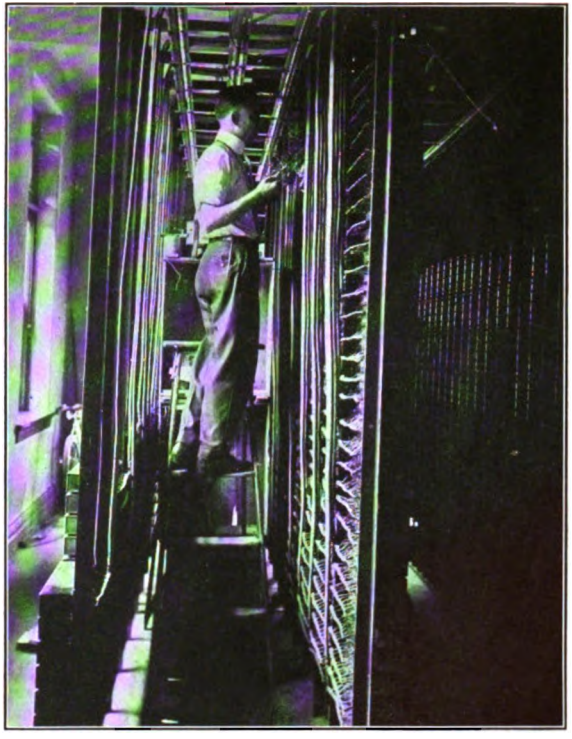


A. TELEPHONE EXCHANGE. "TROUBLE WORK."



B. TELEPHONE EXCHANGE. REPAIR WORK.

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A. COOPERATIVE STUDENT AS INSPECTOR OF STREET REPAIR WORK.

B. COOPERATIVE STUDENT AS INSPECTOR OF BUILDING CONSTRUCTION.

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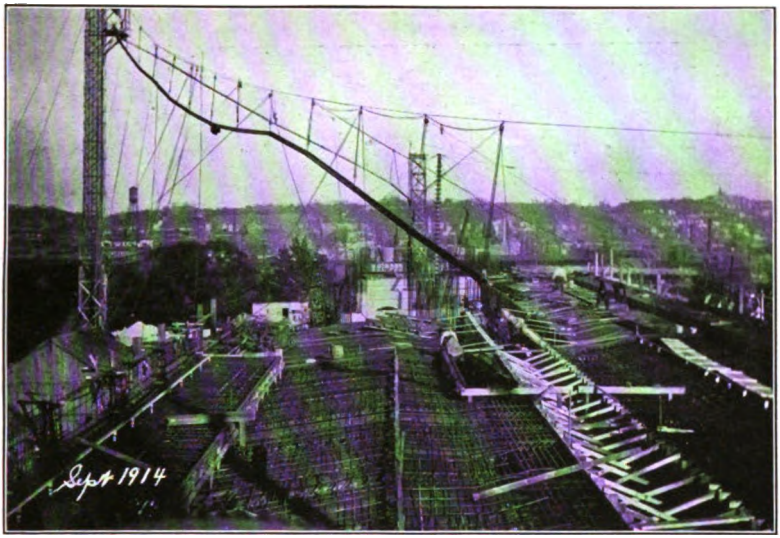
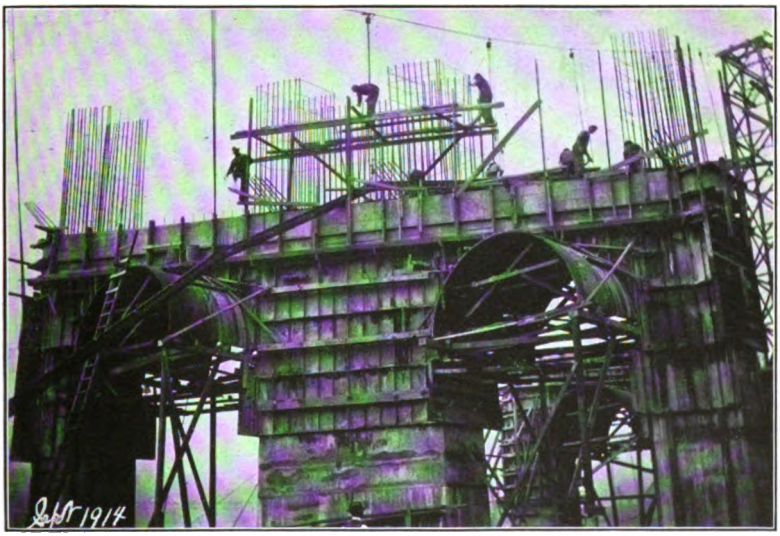


A. REINFORCEMENT FOR CONCRETE VIADUCT, SHOWING METHOD OF POURING CONCRETE.



B. STEEL FRAME FOR PIERS ON CONCRETE VIADUCT.

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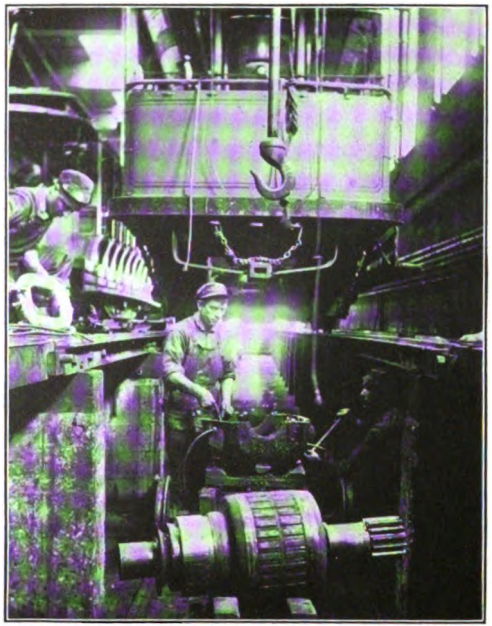

A. CAR BARN REPAIR WORK. MOTOR REPAIR.

B. GENERATION REPAIR WORK.

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the reorganization. Purely descriptive courses were discontinued, and the descriptive matter in all the courses was reduced to a minimum. Much of this material was assigned as incidental reading, to be done during the two weeks when the student was in the shop. In keeping with the underlying theory of the cooperative course, advantage was taken of the reality of first-hand knowledge as against a merely bookish approach. A student who has worked on a lathe, who has drawn it and has explained its construction and operation before a class, requires less reading and certainly less textbook study in order to understand the subject than a student who has only a theoretical knowledge.

By reducing the amount of time given to informational studies, it was possible to give more attention to fundamental subjects than could be given in the regular four-year course. This, too, was in accordance with one of the principal tenets of cooperative education—that the school is primarily a teaching institution, designed to give training that can not easily be obtained through any other agency.

MECHANICAL ENGINEERING—COOPERATIVE PLAN.[1]

COURSES REQUIRED FOR THE DEGREE OF M. E.

Subject.	Course.	Exercises per alternate bi-weekly period.	
		I sem.	II sem.
FIRST YEAR.	**FRESHMAN.**		
Algebra and trigonometry	Math. 1	6	6
Analytical geometry			
General inorganic chemistry	Ch. E. 1a, 3b	5	5
General inorganic chemistry laboratory	Ch. E. 2a, 4b	3	3
Machine drawing	M. E. 1	3	.....
Descriptive geometry	C. E. 1	.....	3
Coordination	C. 1	2	2
Elements of engineering	M. E. 4	3	3
English	Eng. 41	1	1
FIRST SUMMER TERM.			
Elements of engineering	M. E. 4	6	.....
Problems in industrial chemistry		6	.....
Descriptive geometry		5	.....
English	Eng. 41	1	.....
SECOND YEAR.	**SOPHOMORE.**		
Differential and integral calculus	Math. 5	6	6
Physics (general)	Physics 1a, 21b	6	6
Experimental physics	Physics 2a, 22b	2	3
Metallurgy	Met. E. 1a	5	.....
Metallurgy, laboratory		3	.....
English	English 2c	.....	5
Drawing	M. E. 9	.....	2
Coordination	C. 2	2	2
English	Eng. 42	1	1
SECOND SUMMER TERM.			
Mechanism	M. E. 6	6	.....
Drawing and sketching	M. E. 7	7	.....
Mechanical laboratory	M. E. 18	4	.....
English	Eng. 42	1	.....

[1] Extract from the catalogue of the University of Cincinnati.

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COURSES REQUIRED FOR THE DEGREE OF M. E.—Continued.

Subject.	Course.	Exercises per alternate bi-weekly period.	
		I sem.	II sem.
THIRD YEAR.	PREJUNIOR.		
Mathematics	Math.	2	
Steam engineering	M. E. 11.	6	6
Physics, laboratory	Physics 13.		3
Strength of materials	Ap. Math. 2.	6	
Mechanics	Ap. Math. 1.		6
Mechanical laboratory	M. E. 18.	2	2
Power-plant inspection trips	M. E. 16.	1	1
Modern languages		5	5
English	Eng. 43.	1	1
THIRD SUMMER TERM.			
Electrical engineering		7	
Graphics	M. E. 17.	5	
Steam engineering	M. E. 11.	5	
English	Eng. 43.	1	
FOURTH YEAR.	JUNIOR.		
Modern language		5	5
Machine design	M. E. 13.	5	
Machine design	M. E. 14, 19.	4	4
Electrical machinery	E. E. 1, 9.	6	6
Electrical laboratory	E. E. 5.	2	2
Coordination	C. 8.	3	3
Hydraulic machinery	M. E. 27.		5
English	Eng. 44.	1	1
FOURTH SUMMER TERM.			
Engineering design	M. E. 28.	12	
Experimental engineering	M. E. 25.	5	
English	Eng. 44.	1	
FIFTH YEAR.	SENIOR.		
Gas engineering	M. E. 23.	5	
Machine-shop tools	M. E. 15.		5
Experimental engineering	M. E. 25.	2	
Economics		5	5
Thermodynamics	M. E. 21.	2	5
Engineering design	M. E. 28.	4	2
Production engineering	C. 9.	5	
Thesis			5
English	Eng. 45.	1	1

The change of emphasis brought about by the reorganization was reflected chiefly in the insistence upon fundamentals common to all branches of engineering and in the stress placed upon the connection between affiliated subjects. The first three years of civil, mechanical, electrical, and other engineering courses were made essentially the same in theory. Thus, if a student discovered during the first three years of practical experience that he was better suited to a different kind of work, he could easily change his course; for, so far, he would have been studying simply *engineering*. On the other hand, if he showed sufficient aptitude in one branch of engineering to succeed in three years of practical work, he had earned the right to specialize in the theory of that branch during the last two years of his course.

The question of establishing close relations and effective cooperation between affiliated departments was largely an administrative one. Mention has already been made of the connection which was established between prerequisite and advanced studies. In the same

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way, it was found that several pairs of courses could be made to work together. For example, in part of the work English composition instead of being given as an entirely separate course was connected with courses in coordination, chemistry, mechanical, electrical, and metallurgical laboratory, and other courses in which written work was required.[1] Since it was in these courses that the principles of composition were being applied, this arrangement provided numerous subjects for practical themes and at the same time insured more satisfactory writing in the technical course. The double check upon subject matter and composition resulted in a marked improvement in all written work. Similar forms of what may be called internal cooperation were worked out between other departments in which reciprocal relations of the sort proved advantageous. Because of the compactness of the faculty organization and the spirit of cooperation between instructors, the personal equation has affected these combination courses only in the most favorable way.

SELECTION OF MEN.

Because the selection of men is one of the essential elements of the cooperative course, investigations were carried on from the beginning, in order to discover a possible means of determining in advance the fitness of a student for a particular type of work. The various methods examined, and the results, are given in a lecture delivered by Dean Schneider to the students of the New York Edison Co.'s Commercial School, January 20, 1915. The following extracts serve to indicate the way in which the problem of selection was approached. The only conclusions which were at all satisfactory were reached by the old-fashioned plan of trying a man on the job, combined with an analysis of successes and failures, in terms of the major characteristics of the men and the chief requirements of the jobs. To quote from the lecture:

> We found that different methods were proposed and that certain principles were held to be true which had a bearing on the subject. Our investigation was then directed to learning upon which of these methods we could rely and what usable conclusions could be drawn from accepted principles. We found the following proposed methods and principles:
>
> 1. A chart of boy epochs indicated that at least a certain group of psychologists and philosophers hold to a theory that a boy from infancy to about the age of 21 years reproduces in periods the history of the human race.
> 2. A group in the scientific management field affirmed that an examination of physical characteristics, such as the shape of the fingers and shape of the head, disclosed aptitudes and abilities.
> 3. A school of experimental psychologists asserted that the methods of their science indicated characteristics or aptitudes of individuals.
> 4. There was also the old-fashioned plan of trying a man on the job without any previous examination of any kind.

[1] See p. 43.

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Of these methods, the first was interesting, especially as an analysis of a student's actions, but it offered no practical test for the selection of men. The second was found upon examination to be undesirable. The third was made the subject of a series of tests, in which upper-class men were examined, and the deductions of experimental psychology were compared with the known abilities of the students. The results of this investigation showed that the psychological method is not yet trustworthy as a basis for vocational guidance.

The careful examination of many cases under the fourth method, together with an analysis of work in general, revealed the following facts:

THE MAJOR CHARACTERISTICS.

(*a*) In many occupations physical strength is an essential; for example, in draying, stone masonry, and baggage handling. In others it is not; for example, in bookkeeping, telephone installing, and piano tuning. Mankind ranges from the almost helpless cripple to the physical giant. We therefore have the two characteristics, physical strength and physical weakness.

(*b*) I have in mind a number of our students who were utter failures at all kinds of work requiring manual dexterity, but who maintained uniformly good grades in all their school work. Their efficiency was all head efficiency. There have been a number also who were hopeless in all their university work, but whose hands acquired skill easily. Their efficiency was all hand efficiency.

The first type might make good designers, inspectors, executives, or writers, but, unlike the second type, would drag out hopeless existences as machinists, molders, masons, or piano makers. Of course most of our students possess both efficiencies. Our experience has taught us that some men are mental and some are manual, while some are both.

(*c*) There is a type of man who wants to get on the same car every morning, get off at the same corner, go to the same shop, ring up at the same clock, stow his lunch in the same locker, go to the same machine, and do the same class of work day after day. Another type of man would go crazy under this routine; he wants to move about, meet new people, and see and do new things. The first is settled; the second is roving. The first might make a good man for a shop manufacturing a standard product; the second might make a good railroad man or a good outdoor carpenter.

(*d*) There are two broad characteristics which are easily discoverable even in first interviews, the indoor and the outdoor. When a blizzard is raging, the first type likes to hear the roar of the wind because it heightens his sense of protection indoors and emphasizes the coziness of his fireplace, while the other wants to go out and fight his way against the storm. When the rigors of outdoor railroad and construction work are vividly pictured to these two types of young men, one's eyes will light up and his muscles get tense; the other will compact himself as if for shelter.

(*e*) We have found two characteristics which are quickly brought out in practical work, but which are not so easily discernible in school work. Some young men naturally assume responsibility; others just as naturally evade it. It is a well-known fact to all superintendents that the most productive workmen often make inefficient foremen, while an inferior producer often makes a good foreman. One man is directive, the other is dependent.

(*f*) There are two characteristics which are sometimes confused with those just stated, but which are essentially distinct. For example, we had two students in a large shop working in the planning department; one was fertile in suggestions, but the other usually put them into effect. The first was original; the second was directive.

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The man who is original may make a good designer, but unless he is also directive he makes a poor superintendent; he may be a good window dresser, but not a department-store manager, a writer but not a publisher, an inventor but not a manufacturer, a reformer but not a mayor. A partnership in which one man is directive and another original is usually successful. Of course, one person may possess both characteristics.

Then there is the man who does only what he is told to do and exactly as he is told to do it. He is imitative. He would dress every window like every other window. He might make a successful milk-wagon driver, since he would have a fixed route and a bottle of uniform size to deliver; but he would probably make an indifferent drayman, since he would not have a fixed route, and originality (or ingenuity) would be needed to load and unload unwieldy boxes and barrels under adverse conditions. He might make a good machine molder, but not a good floor molder; he would probably be successful and happy at a punch press, but not in a tool room.

(*g*) Then there are the two types mentioned before, one of which likes to fuss with an intricate bit of mechanism, while the other wants the task of big dimensions—the watchmaker, the engraver, the inlayer, the painter of miniatures, on the one hand; the bridge builder, the steel-mill worker, the train dispatcher, the circus man on the other. One has small scope; the other large scope.

(*h*) Some men can easily adapt themselves to any environment, while others act the same under almost any circumstances. One takes the local color like a chameleon; the other is always the same monochrome. One is adaptable, the other self-centered; one a salesman, the other a statistician.

(*i*) There is a distinct type which thinks and then does, in contrast to which there is the type which does and then thinks. One is deliberate, the other impulsive. The northern races are usually deliberate, the southern impulsive; one controls its passions, the other is frequently controlled by them. An army of cool-headed officers and hot-headed soldiers is a highly effective machine, but in the civilian walks of life, the impulsive characteristic is negative, that is to say, there seems to be no occupation in which it is a requisite. There are many vocations, however, in which a man must be deliberate.

(*j*) Our cooperation with a piano-building factory made it necessary to secure men who had a native musical ability—a strong tonal sense. It was found that this was a requisite for success in the higher positions; hence, the music sense is included in the list given below. Obviously the music sense is necessary to the musician, to the violin maker, and to the piano tuner. It should be noted in passing that this is only one of the characteristics needed for the violin maker. He must also be settled, manually accurate, and "indoor." But the piano tuner must be roving.

(*k*) Similarly our cooperation with the chemical industries, particularly the ink and paint industries, showed us the necessity of selecting men who possessed strongly the basic characteristic of color sense. It is obvious that this characteristic is necessary also in other occupations, such as house furnishing, window dressing, painting and decorating, and theatrical staging.

(*l*) We learn quickly that some men have manual accuracy and others manual inaccuracy. Where manual inaccuracy is inherent it is well-nigh impossible to correct it; but where accuracy is inherent and the man is inaccurate through habit, the defect can be remedied.

(*m*) Similarly we have the two elements—mental accuracy and mental inaccuracy. The former has much the same meaning as the word logical, and the latter as the word illogical.

(*n*) Certain men are concentrative mentally; they bring all the light they possess to focus on the subject under consideration; they are mentally centripetal. On the other hand, we find men who are mentally centrifugal and who wander from the subject under consideration or flit from one subject to another; they are diffuse.

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(*o*) Some men go to pieces in an emergency, whereas, if they were given time to consider the situation, they would hold together and act wisely. They possess slow mental coordination. The emergency man must possess rapid mental coordination. The latter is necessary for success in the baseball player, the locomotive engineer, the motorman, and the surgeon. The former is usually typical of the philosopher, the jurist, and the research scientist.

(*p*) One often hears it said of a man that he has no push, or that he lacks determination, backbone, grit, sand; other men are said to possess these qualities. The first we call static, which means to cause to stand still, and the second dynamic, which means to cause to move. It should be noted that the noisy man is not always a dynamic man—on the contrary, he is frequently static; while the quiet man is very frequently dynamic.

The list then reads:

(*a*) Physical strength
Physical weakness
(*b*) Mental
Manual
(*c*) Settled
Roving
(*d*) Indoor
Outdoor
(*e*) Directive
Dependent
(*f*) Original (creative)
Imitative
(*g*) Small scope
Large scope
(*h*) Adaptable
Self-centered
(*i*) Deliberate
Impulsive
(*j*) Music sense
(*k*) Color sense
(*l*) Manual accuracy
Manual inaccuracy
(*m*) Mental accuracy (logic)
Mental inaccuracy
(*n*) Concentration (mental focus)
Diffusion
(*o*) Rapid mental coordination
Slow mental coordination
(*p*) Dynamic
Static

The method is not scientific in the usual sense of the word; its principal virtue is that it works every day better than any other system we have investigated. It is unscientific because it rests on the judgments of men, and, as we know, mental standards vary; but it should be noted that the facts upon which the judgment is predicated are beyond question, since a student's efficiency in practical work is determinable.

Now, a job can usually be defined broadly by the major characteristics needed for success on it. Thus a bridge-erection job needs an outdoor, roving, directive, original, dynamic man; a punch-press job needs an indoor, settled, dependent, imitative, static man. If a student is successful on a job, it is assumed he possesses the characteristics which the job requires; if he is not, an analysis is made to ascertain which of the characteristics he lacks, and it is concluded that he probably has the opposites of the lacking ones. So in time over a range of jobs, a student shows certain characteristics and a lack of certain others. Upon a knowledge of him obtained in this way we safely "guarantee" upper classmen for more responsible jobs. The method is crude, but it is the best we have found.

The conclusions so far drawn from our experience with about one thousand mature students in school work and practical work are as follows:

1. A worker's failure is as significant as his success, and should be analyzed to indicate a new and fitting job.
2. The characteristics developed by analysis of many successes and failures furnish a basis for placement which works better than any plan we know.
3. The method is crude and unscientific; it requires a period of time much greater than other methods proposed, but it insures a reliable verdict.

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NECESSITY FOR CHANGES IN THE COOPERATIVE COURSE.

The changes noted in this section include the principal developments which have thus far been made in the cooperative course in engineering. Because of their gradual growth and the tests which have been given them since their adoption, it is probable that most of these changes will stand. No one will contend, however—least of all, those who are responsible for the course—that these developments represent perfection. It is to be expected that engineering courses in all colleges will have to be revised from time to time in order to meet the demands of a growing profession. Besides having its part in this and other general phases of educational progress, the cooperative course is subject to amendment for reasons peculiar to its nature. An educational system that is organic enough and human enough to maintain a vital connection with industry must of necessity grow and change. However firmly established the general principles of the system may be, the actual operation of the course, linked as it is with conditions of life and work, will continue to open up new problems and new possibilities.

IV. OTHER APPLICATIONS OF THE COOPERATIVE PLAN.

Although the college of engineering at the University of Cincinnati has furnished the most conspicuous example of cooperative education, it is by no means the only school, or the only type or grade of school, in which the plan has proved successful. The validity of the general principle has been established by the experience of a dozen or more institutions, including both engineering colleges and secondary schools, which have adopted some form of cooperation. Much discussion has been carried on, relative to the extension of the cooperative plan to other branches of education, and it is safe to predict that before long several important experiments in this direction will be undertaken. This is not the place for a detailed description of cooperative courses in other institutions, though an account of the system is hardly complete without some reference to the various fields of education to which cooperation has been or may be extended. But first, by way of recapitulation, it will be well to summarize the chief attributes of the term "cooperative education" as it has been used in this bulletin.

DEFINITION OF COOPERATIVE EDUCATION.

By "cooperative system" is meant the coordination of theoretical and practical training in a progressive educational program. Since the agency which furnishes the practical experience is always some branch of actual industry, the reciprocal relation between school and shop permits the fullest possible utilization, for educational

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purposes, of equipment used in commercial production. Obviously, the arrangement of alternating periods is a mere administrative detail. From the employer's point of view, the most important elements of the cooperative plan are: First, the selection of workers; and, second, the awakening of an enlightened interest in their work through coordinated instruction.

From the standpoint of the school and the student, the most important feature of cooperative education is the *realization* of theory through its practical applications. In a very literal sense the studies in the curriculum become "applied subjects." In the use of the word "cooperative," emphasis is placed not only on the kind of training given, but also on the relation between school and industry, and on the method of bringing them together.

In recent discussions of educational matters, there has sometimes been a tendency to associate with the cooperative plan phases of education which clearly are not included in the foregoing description. In fairness to other methods and philosophies of education as well as to the cooperative system, the several methods should be sharply differentiated. In the study of a system, not isolated features, but a collection of attributes, and the object and method of their combination, should be considered. Manual training, the Gary plan, trade schools, continuation schools, apprentice systems, and the more legitimate forms of vocational and "earn-while-you-learn" schools may have some things in common with the cooperative plan, and with each other; but in underlying theory and method they are different. Each should be judged according to its own theory, standards, methods, and results; and its place in the general scheme of education should be determined accordingly.

COOPERATION IN HIGH SCHOOLS.

In a number of high schools the cooperative plan has been adopted and courses have been operated successfully under widely varying conditions. At Fitchburg, Mass., for example, an arrangement exists whereby high-school students, after spending one year wholly in school, work during alternate weeks as apprentice machinists, pattern makers, saw makers, draftsmen, molders, tinsmiths, printers, or textile workers. The instruction which they receive at school is coordinated with their practical work. The cooperative principle is similarly applied in the York (Pa.) High School, where the students work in machine shops, foundries, automobile and carriage works, and in the cabinetmaking department of a piano factory. Recently cooperative courses have been introduced into several high schools in New York City. At present cooperation is being carried on with mail-order houses, department stores, machine shops, railroads, automobile factories, printing offices, electric light and power com-

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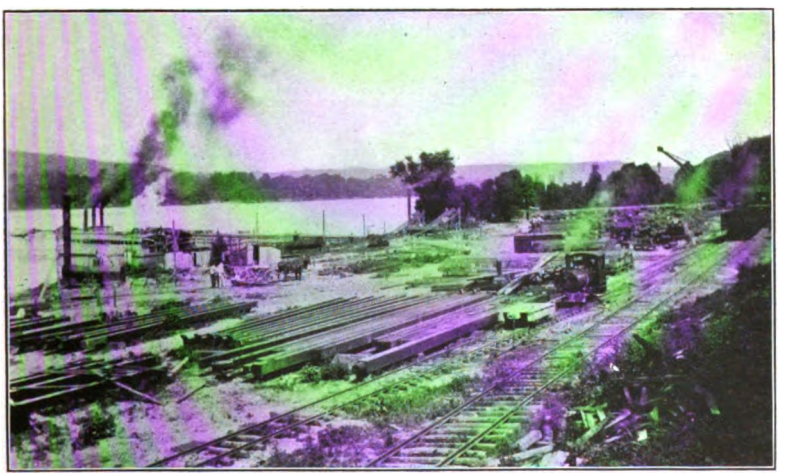
A. PILE DRIVING. BIG FOUR RAILROAD.



B. LAYOUT OF PLANT FOR CONSTRUCTION OF GOVERNMENT DAM, OHIO RIVER.

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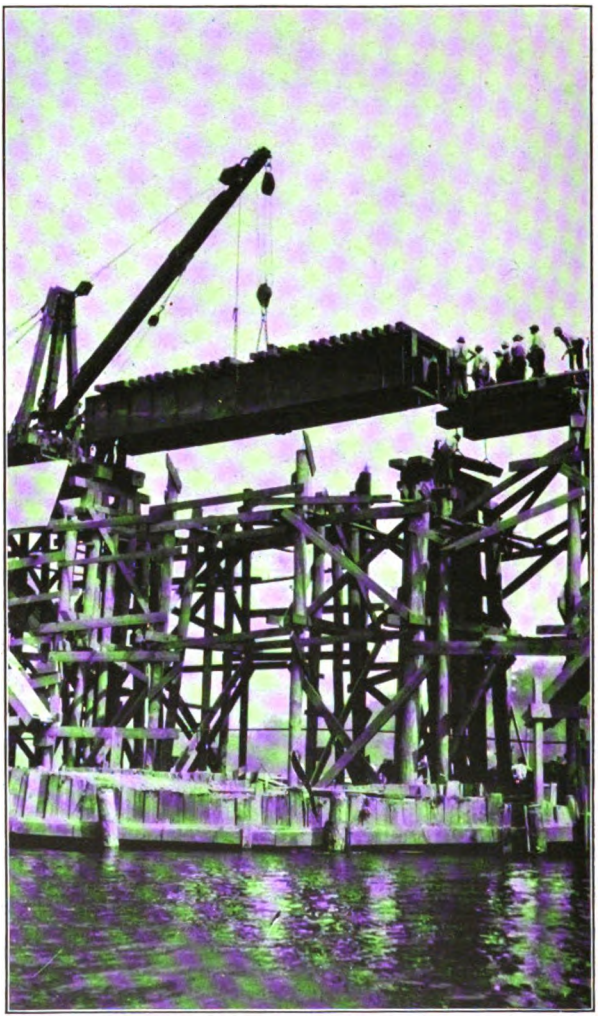

BRIDGE CONSTRUCTION. BIG FOUR RAILROAD.

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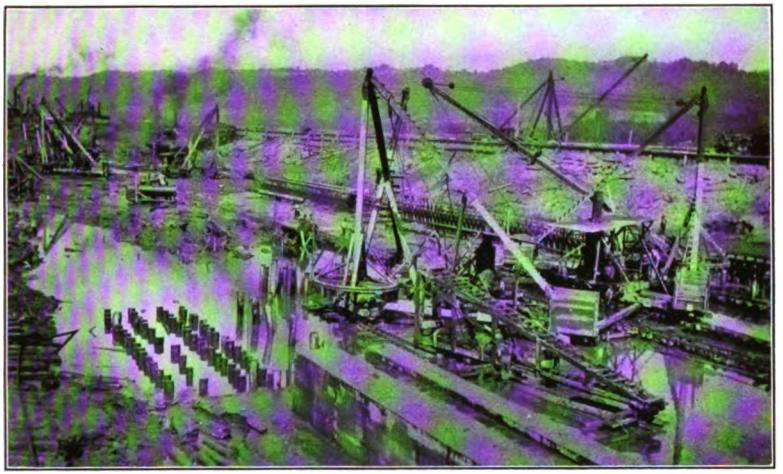

A. GOVERNMENT WORK. DRIVING PILES FOR DAM 33, OHIO RIVER.

B. CONSTRUCTION OF CONCRETE LOCK FOR DAM 35, OHIO RIVER.

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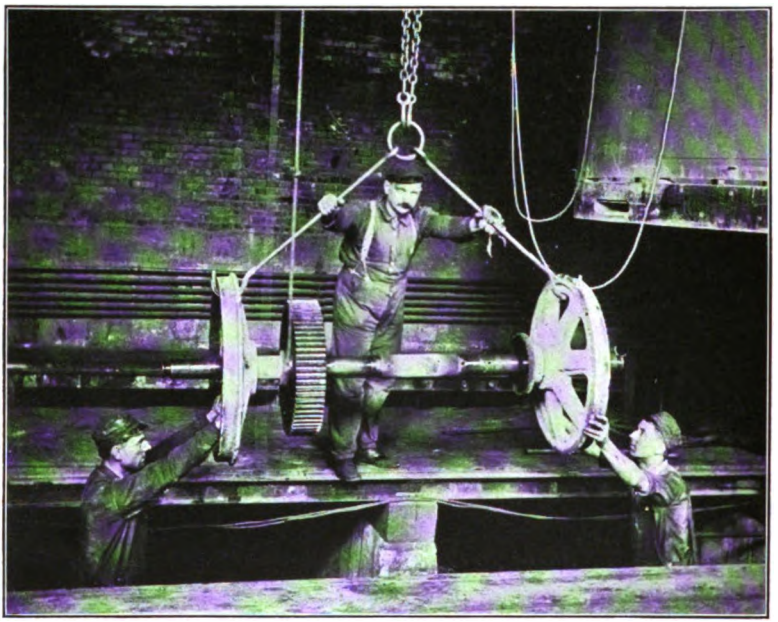

CAR BARN REPAIR WORK. TRUCK REPAIR.

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panies, and other branches of industry, according to the localities in which the schools are situated. The results of the New York experiment hitherto have been such as to refute the arguments that the cooperative course can succeed only in a few occupations and in small centers.

POSSIBLE EXTENSION OF COOPERATIVE EDUCATION.

Agricultural education.—Recognition of the opportunities for cooperative education in agriculture is now general, and it is likely that before long the plan will be given a thorough trial in connection with schools and colleges favorably located for such cooperation. The statement of A. C. Monahan, of the United States Bureau of Education, as reported in the Cincinnati Enquirer of March 20, 1915, expresses a conviction which is shared by many educators, regarding the opportunities for cooperative education in the agricultural sections of the United States:

> The Schneider system of combining practical with theoretical studies and giving credit for results achieved in both ways is destined to be adopted generally in technical schools and urban and rural high schools throughout the country. A large number of persons have indicated their hope that a cooperative agricultural educational scheme of this character might be adopted in the Southern States.
>
> Under the Schneider system a student works part of the time in school and part of the time in the shops. As the idea has been worked out in Northampton, Mass., a rural student is given credit for the time passed in doing ordinary farm chores, provided that he uses intelligence in his methods of work and in the observation of results.
>
> There is no particular cultural value in a boy milking cows, for instance, or cultivating corn, after he has done it a few times, but if he will do a certain amount of reading in connection with the work, keep records of yield and cost, and make experiments which require him to think, that is educational.
>
> In the Northampton (Mass.) High-School course of four years the students have four home tasks for which they are given credit. Each task consumes a year. If the student essays to cultivate an acre of ground the first year, he will be given credit for that, if he follows instructions. The next year he may decide to take charge of two, four, or six cows, according to his age. He must do all the work himself and keep detailed records, to secure credit at the school. The system has proved to be very helpful to the school and to the community.

In the agricultural colleges, the winter courses for farmers, now everywhere established, might easily be made the beginnings of a cooperative system. Better still would be the six-months courses, which begin after wheat sowing and end in time for spring plowing. The mere alternation of work and study, of course, means very little; but if the two periods were organized according to a systematic plan for the coordination of theory and practice, there is no reason why a cooperative course in agriculture could not be made a success. If such a plan were adopted, the model farm at the State college would

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be supplemented, if not displaced, by the various agricultural plants over the State, with their wealth of educative material.

Proposed national university.—Among the many opportunities for the application of the cooperative principle in graduate and professional education, perhaps the most significant are those which have been mentioned in connection with the proposed national university. Dean Herman Schneider, in a statement before the House Committee on Education, January 26, 1914,[1] and President Charles William Dabney, in a statement before the same committee, February 27, 1914,[2] have explained different phases of the cooperative plan which would naturally apply to a national institution of this kind. The former emphasizes especially the selection and training of men for public service, and the latter, the utilization for instructional purposes of the vast scientific equipment of the United States Government at Washington.

The following is quoted from Dean Schneider's statement:

The proposal that the Government establish a National University at Washington presupposes that the Government has a definite educational problem to solve, and that no existing agencies do or can solve it. Juxtaposed statements of the many problems facing the nation which can be met by education and of the facilities offered by the established institutions of higher learning disclose at least one major problem unsolved or insolvable without the organization of a new institution—the training of experts to do the work distinctly peculiar to the Government. Such work, for example, includes service in the diplomatic and consular fields, in the Patent Office, in the Bureau of Engraving and Printing, in the Agricultural Department, in the Industrial Relations Commission, in the Interstate Commerce Commission, and in many other other departments and commissions.

It is evident without argument that the high degree of efficiency required to meet the growing complexity of governmental activities can best be obtained by selecting persons of reasonably demonstrated fitness for the service, training them in the actual work, and supplementing their training with an equal amount of coordinated instruction and research.

The application of the cooperative plan to a National University having as one of its functions the training of Government experts can be considered most succinctly under the three basic principles of the system—selection, practical training, and coordinated instruction.

At the University of Cincinnati the applicant is required to present a high-school scholarship record which presumably indicates his mental ability. He is then required to serve three months of full-time work under observation in the field of engineering he has chosen. If he gives evidence of fitness, he is admitted to the university. The real weeding out of the inapt and the relocation of the able but misplaced go on through five years of combined work in theory and practice.

The National University, however, will be a graduate school, and hence its selective system will be simpler and surer, for during his undergraduate career a young man demonstrates his positive tendencies. Thus, in biology he may show marked ability, and take his majors in this science. He should have a knowledge of the subject sufficient to enable him to enter certain scientific bureaus of the Department of Agriculture, and it has been shown that he should have a strong bent toward biological work of this character. Upon graduation from his undergraduate school, and pre-

[1] Published in the Engineering Record, Apr. 11, 1914.
[2] Published in School and Society, July 10, 1915.

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senting proofs of his special ability, he might be admitted to the bureau and to the National University. Since the system would apply to all or nearly all of the Government departments, the National University, together with the department and bureau chiefs, could specify the major studies in which an applicant must be proficient in order to enter any particular department. Thus, upon investigation it might be found that the applicant for training in the Consular Service should present majors in history, political science, economics, and international law; and in the Coast and Geodetic Survey courses in civil engineering, with special work in astronomy. In short, the requirements for admission would be: First, the successful completion of an undergraduate course, containing such major studies as might be required to begin work in a special department; and, second, reasonably demonstrated ability for the work selected.

The organization of the practical work would be effected by conferences between the heads of the cooperating departments and the National University professors. Thus, the question to be met in training men for the Consular Service would be what departmental experience a well-trained consul should have. Analysis and synthesis would lead to a plan of carefully selected progressive experience in appropriate bureaus of several departments—State and Commerce, for example. It is not improbable, too, that further experience in a banking concern doing a diversified foreign business would be found advantageous. The occasional use of privately owned training facilities could be arranged without difficulty. The essential factor in the training part of the scheme is planning the practical work to meet comprehensively the demands of the positions for which the graduate students are being trained.

Successful completion of the cooperative training should insure entrance into the service, at a grade to be determined, just as graduation from West Point guarantees admission into the Army with a certain standing. Indeed, there seems to be no rational reason why training for important posts in the civil service should not be as much a function of the Government as training for like posts in the military service. The present method of selection by examination is admittedly an expediential compromise. Unquestionably, the additional cost of the university to the Nation would be more than met by the increased efficiency of the Nation's servants. Nor need the cost be great; for under the cooperative system the university uses existing facilities, and hence its expense is confined to teachers, classrooms, and special laboratories. In fact, the cooperative system is merely a combination of the old-fashioned thorough apprenticeship and the old-fashioned "college," with the obviously necessary coordination.

The old-fashioned apprenticeship possessed real educational values, but because of specialization it has been gradually disappearing instead of extending to more and higher phases of human activity. Fortunately, we are beginning to realize that our carefully designed mechanisms for production, construction, and distribution are in the truest sense laboratories, whose educational worth it were folly to ignore longer. More significant still, because of the rapidly growing complexity of governmental functions, are the educational opportunities at Washington. Their utilization through cooperation would enhance manyfold the value of the National University.

The specific work outlined in the foregoing is not exclusive; it could not possibly interfere with any other work which might properly be done by the proposed institution.

In his statement Dr. Dabney said:

Another consideration in advocating a National University of this type is the duty of utilizing these vast stores of scientific material in Washington as completely as possible for the advancement of knowledge. It is a well-known fact that the demands of the Government for immediate economic results compel its scientific staff to devote its energies almost exclusively to the study of those problems which have practical

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ends. The rich materials for the advancement of pure science are thus, in a large measure, necessarily neglected. If in each of the Government scientific bureaus there were a number of students working on their material with reference to the advancement of pure science, the world would certainly get a much larger output of results. The utilization of material by a limited number of students of this character need not interfere at all with its use for economic results. On the other hand, a complete scientific study of the material would undoubtedly greatly promote the efficiency of the departments in reaching the immediate results demanded by the Government. The presence and work of advanced students would undoubtedly greatly improve the work of the Government scientific staff itself.

REQUISITES FOR A SUCCESSFUL COOPERATIVE SYSTEM.

Notwithstanding the many possible applications of the cooperative system, only a few of which have been indicated, it would be a mistake to assume that this type of instruction can easily be put into successful operation in any given combination of circumstances. It will be recalled that the cooperative course was first suggested by the existence, side by side, of an institution for teaching young men and a great industrial plant in which as graduates these same young men would put their theory into practice. Under the cooperative plan it was proposed merely to take advantage of what may be called the "laboratory of industrial environment" in the training of students whose book learning found practical illustration in that environment. Since one community varies widely from another in the nature and extent of its industrial interests, there must be a corresponding variation in the details of a cooperative course designed to fit a particular community. Thus, the cooperative course in engineering which has been developed at the University of Cincinnati could not be successfully adapted in its entirety by the University of Akron (Akron, Ohio), the University of Pittsburgh (Pittsburgh, Pa.), or the Georgia Institute of Technology (Atlanta, Ga.). Each institution has its own peculiar set of conditions, industrial and educational, and whoever plans a cooperative course must take account of these conditions.

Nor does the adaptation end with designing and establishing the course. Unlike the regular course, which can be administered within a comfortably definite routine, the cooperative system is a perpetual challenge to the vigilance and ingenuity of the executive force. There are, to be sure, no insuperable administrative difficulties, but there are frequent surprises and small adjustments that call for watchful supervision. Still more depends, however, upon the spirit of the teaching staff and of the student body. Although teamwork and a friendly attitude of "give and take" are important in any union of effort, they are vital to the cooperative course; they are, in fact, the essence of cooperation.

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APPENDIX A.

TYPICAL INSTRUCTION SHEETS AND OUTLINES.

OBSERVATION OUTLINES FOR COOPERATIVE STUDENTS.

The work syllabi, or observation outlines, extracts from which are given on the following pages, are intended to serve a twofold purpose: First, to make the student a more intelligent, and consequently a more efficient, workman; and second, to emphasize the instructional value of the practical work, by showing the relation between the student's practice and his theory. The three types of work which have been chosen for illustration are as follows: Electric car trucks, foundry metallurgy, and engine lathe.

ELECTRIC CAR TRUCKS.

Many cooperative students, especially in electrical engineering, begin their practical work in the shops and barns of the Cincinnati Traction Co. Some idea of the variety of experience afforded by this work may be gained from the excerpts given below.

No. 15. Electric Car Trucks—Repair and Maintenance.

Name..... Date.....

Student apprentices employed by the local traction company in their car barns and repair shops are generally engaged in the repair of the rolling stock. In detail, the work consists of—

(*a*) The repair and adjustment of trucks, brakes, motors, controllers, heaters, lights, switches, and electrical protective devices;

(*b*) The wiring of cars, connecting motors, controllers, heaters, lights, switches, and electrical protective devices;

(*c*) The inspection of parts of cars to ascertain whether repairs are needed; and

(*d*) Machine work in which new parts are manufactured or built to replace those worn out in service.

The questions on the following pages which deal with the maintenance and repair of trucks and related parts are grouped for convenience as follows: Mótor suspension; gears and pinions; wheels and axles; bearings; lubrication.

While the mechanical work of repairing trucks is of a rough type, compared with many machine-tool operations, the experience, nevertheless, is of great value to the engineering apprentice, on account of the numerous applications of technical theory encountered. Attention will be called to many of these applications by the coordinating questions on the following pages. Questions relating purely to practical work are numbered. The questions which show the theoretical connections are lettered and grouped with the corresponding practical question. The branches of science involved are shown in parentheses, together with the year of the university course in which these subjects are studied.

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REFERENCES ON ELECTRIC CAR REPAIR AND MAINTENANCE.

Machine Reference Series No. 34, Care and Repair of Dynamos and Motors.
Machine Reference Series No. 74, Electric Magnetism.
Machine Reference Series No. 75, Motors, Generators, and Electric Railways.
Electric Road Maintenance—*Jackson.*
American Electric Railway Practice—*Herrick and Boynton.*
Modern Electric Railway Motors—*Hanchepp.*
Elements of Electric Traction—*Gant.*
Electric Railways—*Ashe.*
Electric Railway Handbook—*Herrick.*
The Motorman and His Duties—*Gould.*

CHARACTERISTICS OF DIFFERENT TYPES OF TRUCKS.

1. What are the essential differences between the trucks of single and double-truck cars? Which type of car can take the shorter curve, and why? Which can take a given curve at the higher speed, and why? Which type is in greater use by the local traction company? Are there any lines on which either type can not be used? If so, state the reasons.

A. What determines the minimum radius of the curve around which any *truck* can pass? (Coor. –1, 2.)

B. What determines the minimum radius of the curve around which any *car* can pass? (Coor. –1, 2.)

C. How would you measure the radius of a track curve on a city street? (Math. –1.)

D. In what units are the radius and the length of a curve expressed? (R. R. Surveying Theory –3 E. E.)

2. Define clearly and state the functions of each of the following parts of trucks, and give the materials of which each part is made: Frame, bolster, transom, center-plate, king-pin, equalizer springs, equalizer bar, pedestals, journal boxes, side-bearing plates, journal brasses, motor axle, sleeves.

3. What is the object of "hanging" the spring plank from the transom, and in what way is this done?

4. Show how the different locations of brake shoes on a truck influence its design. (For detailed questions on brakes, consult special sheets.)

5. Explain the functions of the side bearings of a car. What is the difference in their action when the car is filled and when it is empty? How much clearance is usually given in these bearings? What is the result of too much clearance? Of too little? To what extent are these bearings cushioned on wooden blocks? State your opinion of this practice.

6. Be able to show by a sketch the construction of a full elliptical spring. How are the various leaves held together, and how are the ends of the outer leaves tied? How many leaves are used in the springs of trucks under your observation, and about what is their thickness?

A. What is the moment of a force? What is a bending moment? (Mechanics –3.)

B. In a leaf spring, why are more leaves necessary under the point of application of the load than near the ends? (Elem. of Eng. –1; Mech. –3.)

7. Describe the maximum traction truck and explain the significance of its name. What provision puts the greater part of the weight on the large wheels? Why is this desirable? State the object of using different sized wheels on the same truck. How does the danger of derailment in a truck of this type compare with that of trucks symmetrically loaded?

A. What class of lever have we, if we consider the center of the small wheel a fulcrum, a point opposite the king-pin as the point of application of power, and the center of the large wheel as the load? (Elem. of Eng. –1; Phys. –2; Mech. –3.)

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B. If we consider the side frame of the maximum traction truck as a beam, with the load applied at the point opposite the king-pin, show how to calculate the reaction at each axle journal. (Elem. of Eng. -1; Mech. -3.)

38. How is the power transmitted from the gear to its axle in the case of (*a*) pressed fits; (*b*) of split gears? In which case are keys necessary, and why are they not necessary in both cases? What kinds and sizes of keys are used for each type of gear used by your company?

A. Is the width of face of a gear usually designed merely to resist all stresses with the correct factor of safety, or is it made wider than necessary in order to decrease the unit pressure and the resulting wear? (Mach. Des. -3.)

39. Explain by a sketch how the armature pinions are fastened to their shafts. Are their seats tapered or straight? Can they be removed? Of what grade of material are such keys made? What kinds and sizes of keys are used?

A. Why is a pinion often made wider than its gear? (Mach. Des. -3.)

B. Which wears the more rapidly, the pinion or the gear? Why? (Mach. Des. -3.)

FOUNDRY METALLURGY.

The following questions are part of a syllabus on foundry work. In addition to metallurgy, the sheets on foundry practice include hand and machine molding operations, core making, and foundry management.

No. 12. Iron Foundry (Metallurgical Sheet).

Get the following data and measurements in regard to the cupola used at your foundry. These data will be useful in studying comparative cupola performance in connection with the subject of metallurgy.

1. Diameter of cupola (in inches).
2. Height of tuyeres from sand bottom (in inches).
3. Height of charging door above tuyeres (in inches).
4. Height of charging door above tuyeres divided by diameter (in inches).
5. Number and arrangement of tuyeres.
6. Size of tuyeres (in inches, vertical and horizontal).
7. Area of tuyeres (in square inches).
8. Cupola area is how many times tuyere area?
9. Diameter of blast pipe (in inches).
10. Blast pressure 20 minutes after start (in ounces).
11. Class of work made.
12. Relined, how often.
13. Weight of bed charge of fuel (in pounds).
14. Weight of iron in bed charges (in pounds).
15. Weight of fuel in charges subsequent to the bed charge.
16. Weight of iron in charges subsequent to the bed charge.
17. Total weight of fuel, one run (in pounds).
18. Total weight of iron, same run (in pounds).
19. How many pounds of iron are melted by 1 pound of fuel?
20. Kind of fuel used.
21. Fuel measured by weight or by volume?
22. Height of fuel bed above tuyeres (in inches).
23. Thickness of fuel charges after the bed charge (in inches).
24. Thickness of iron charges after the bed charge (in inches).
25. Time before iron appears after blast is on (in minutes).

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26. Time to melt each iron charge after the bed charge (in minutes).
27. Total iron melted per minute (in pounds).
28. Total iron melted per minute, per square foot cupola area.

Find from your foundry the answers to as many as possible of the following questions:

1. *Mixtures.*—How many different iron mixtures are used on the work at your foundry? What are their distinctive chemical differences? For what class of castings is each used, and why? How many and what mixtures are poured in the same run? How are the different mixtures prevented from mixing in the cupola? In what order are the mixtures melted? Why?

2. *Pig, scrap, and coke.*—Give names and as many as possible of the characteristic chemical differences of the various grades of pig iron and scrap used. What are the prevailing market prices of these grades? What kind of coke is used and what is its cost?

3. *Zones.*—What are the exact locations and thicknesses of the crucible, tuyere, and melting and stack zones of your cupola? What takes place in each during melting?

4. *Melting practice.*—What is the range of sizes of commercial cupolas? Does the diameter of the cupola affect the weight of the various charges of iron and fuel? Why? If it takes longer than usual for the iron to run, after the blast is turned on, what does this fact indicate? What is the effect of too thick layers of coke? Why? What is the effect of too thick layers of iron? How is this noticed? Is it possible to have alternate layers of iron and fuel too thin? How is very hot iron produced? What percentage of pig iron charged is lost in melting and pouring? In what ways does this loss occur? Why?

5. *Chemical changes.*—Do iron castings ordinarily contain more, or less, sulphur than pig iron? Why? How much? Why is the first and last iron drawn relatively higher in sulphur than the rest? How can the amount of sulphur in the last iron drawn be reduced? Why? Do castings contain more, or less, silicon than the original pig? Why? How much? What materials are charged to form a slag? Give both their chemical formula and their physical form. Is any fluorspar used? Why? What are the advantages and disadvantages of a high state of fluidity in the slag? What becomes of the dirt on the pig iron? What becomes of the ash of the coke? What gases come from the top of the cupola? What is a "cutting flame"? What causes it, and how is it recognized?

ENGINE LATHE.

The outline on the engine lathe deals with three principal phases of the student's experience: (1) The operation of the machine, (2) the design of the machine, and (3) the management of the department in which the machine is used.

No. 3. Engine Lathe.

Name..... Date.....

In running any machine tool, the important points are: (*a*) The fastening of the work, (*b*) the choosing and setting of the correct cutting tools, (*c*) the selection of the proper feeds and speeds and the taking of the cut.

Questions Nos. 1–75, inclusive, on the following sheets, will guide you in a study of your work. For convenience they are arranged under the following headings:

(A) Lathe tools—kinds, uses.
(B) Speeds and feeds.
(C) Fastening and supporting of the work.
(D) Typical lathe operations.
(E) Taper turning and boring.
(F) Thread cutting.

Answers to these questions will be found in your experience or in the references given below.

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REFERENCES.

Catalogue of the firm making your machine.
Operation of Lathe, Part 1, Machine Reference Series.
Operation of Lathe, Part 2, Machine Reference Series.
Principles of Machine Shop Work—*Smith.*
Lathe Design—*Nicolson.*
Modern Machine Tools—*Benjamin.*
The Art of Cutting Metals—*Taylor.*

1. What is an engine lathe? Write the names of 20 of the principal parts of your lathe.

2. When is a lathe tool right-handed and when is it left-handed? Sketch top views of the following: Round-nose rougher, wide-nose finisher, side tool, bent left-side tool, brass tool, parting tool, vee-thread tool, and boring tool.

LATHE TOOLS, SHAPES, SETTINGS, AND GRINDING.

3. Define and show by sketch: Clearance, back slope, and side slope. What is the object of each of these?

4. Why has a round-nose roughing tool a curved cutting edge?

5. Why is there danger of spoiling the work by setting a round-nose tool with its nose pointing in the direction of the feed? How is this danger eliminated—(*a*) when turning, (*b*) when boring?

6. What is the danger of spoiling the work when the point of the tool is set above the axis of the work and projects too far out from the tool post?

7. Show by a sketch the effect on the clearance and on the effective top slope of having the tool set—(*a*) above center, (*b*) below center. For ordinary turning, what is the correct height of the tool? What is the effect of too small a cutting angle when cutting hard material? Why should the top slope be zero or slightly negative for brass and other soft materials?

8. What is meant by burning a tool when grinding? What precaution can be taken to avoid this?

9. What is the special advantage of using tool holders? Sketch two different forms.

10. What are forming tools? How are lathe-forming tools sharpened without changing their shape? On what work are they used?

SPEEDS AND FEEDS.

11. What is meant by the cutting speed on a lathe? How is the correct cutting speed determined?

12. What is the effect of too high a cutting speed? In general, what do you consider to be the most economical cutting speed for a given job?

13. How does the cutting speed vary with different materials worked on? With depth of cut and feed? Why is the maximum speed for cast iron lower than that for steel?

14. A piece of lathe work 12 inches in diameter is turning at 18 r. p. m. What is the cutting speed?

15. A certain material permits a cutting speed of 90 feet per minute. Its diameter is 6 inches. What would be its r. p. m.?

FASTENING OF WORK.

17. Name four methods of fastening work in a lathe.

18. By means of sketches, show three ways of locating the center of a round shaft by hand, preparatory to drilling the center holes.

19. What are two advantages of centering by means of a machine? By means of a sketch show why bent work should be straightened before centering.

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20. What is the angle of lathe centers? Show by a sketch the result in each of the following cases—(*a*) when the center hole of the work has a smaller angle than the lathe center; (*b*) when it has a larger hole than the lathe center.

23. Which end of the mandrel receives the dog? Show by sketch the effect of using too short a dog.

24. Describe two types of expanding mandrels. Use sketches.

25. What is a roller mandrel? Sketch a section through one and state its particular advantage over a plain mandrel.

79. Why will a machine with a single-pulley drive often deliver more power to a tool than a cone-driven machine? Calculate the maximum possible cut speed on work of minimum possible diameter. Calculate the minimum possible speed on work of maximum possible diameter. Why are these values significant?

80. How is the feeding mechanism connected to the driving mechanism? By what mechanism is it possible to secure variable feeds? How is the amount of feed designated? Make a list of all feeds.

81. Has this lathe a feed rod separate from the lead screw? Why? If not, is the lead screw splined? Why? What is the pitch of the lead screw? Of the cross-feed screw? Can the lead screw and the feed rod be engaged at the same time? Is there a chasing dial? If so, into how many divisions is it marked? What are the high and low limits of the threads possible to cut?

82. What angles are used on the carriage ways? Have these been chilled? Are the centers set half way between the Vee ways or not? If not, where are they, and why?

83. How is the carriage gibbed to the bed? How is the compound rest gibbed to the carriage? How is the apron secured to the carriage?

84. Can the longitudinal and cross feeds be engaged at one time? If so, what angle will this tend to cut? Is the tool rest plain, swivel, or compound? What is the difference in the construction and use of each of these? What is the maximum possible size of tools? Is there any taper attachment?

85. Give the material of each of the following, including any heat treatments given to the gears: Bed, carriage, tailstock, spindle, tailstock spindle, apron, driving pulley, face plate, hand-feed handles, spindle bearings, gibs, dead center, live center, back gears, driving gears, and gears in apron.

86. In order that the lathe may do accurate work, what alignments relative to each other are required of the spindle, carriage ways. centers, and cross slide?

87. Assume the machine to be pulling a heavy cut. Without calculations, tell roughly the directions of the forces which resist the pressures of the cut longitudinally, crosswise, and torsionally; and tell in what members these forces act.

88. Can you ascertain in what positions the castings for the bed, headstock, tailstock, apron, and carriage were poured in the foundry? Can you tell which portions of each of these were in the cope, and which were in the drag? What parts required the use of cheeks?

89. What points were incorporated in the design of the above castings to secure the necessary rigidity? What points were incorporated to insure freedom from certain metallurgical faults in the castings?

104. What kinds of tool steel are used for the forged tools? By whom are such tools made? By whom dressed? What makes of toolholders are used? To what extent and on what classes of work? What brands of taps and reamers are used? What types of reamers are most common? By whom are the form tools and special cutters designed? By whom made? By whom resharpened or ground? What brands of the above tools would you recommend, and why?

105. What types of chucks and face plates are in most general use? Are chucks and face plates ever used on other machines than those for which they were built?

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What makes of chucks can you recommend? What kinds of mandrels are used? Are they made in your own tool room? What is the practice in regard to the amount of taper used on the different types of mandrels?

106. Give a list of all special attachments and fixtures used on lathe work. What is the special use of each? What fixtures have you needed in your work which were not to be had?

107. Give any standard allowances used in your department in making running, drive, press, or shrink fits. Give a concrete example of one of each of these fits made in your department. Is the variation from standard put on the male or the female part?

108. What kind of crane or hoist service has the department? Describe, and give all possible data. Note also whether the department is provided with such facilities as arbor presses and centering machines.

109. Describe all tickets and tags which accompany the work through the department. Bring in a sample or sketch of each, explaining its use. How long does work remain in the department on an average? From what departments does it come, and to what departments does it go when finished? How much work is turned preparatory to finishing in a grinder? How close to size is such work turned? What are the average sizes of lots for different types of work? Can you ascertain how the foreman keeps his records of work completed, work under way, and work soon to come?

110. What lubricating or cooling compounds are used? How are these mixed, and how applied? How are they stored before mixing? What provisions are there for cleaning machines? Of floors? By whom cleaned?

111. Sketch freehand—(1) Lay-out of department, and (2) vertical section through shaft hanger.

INSPECTION TRIP REPORTS.

COORDINATION 1, 3, AND 5, AND ENGLISH 41.

Although the inspection trips outlined below are made a part of the work in coordination, the reports are counted as themes by the English department and are thus criticized both for subject matter and for expression. A similar plan is followed in the case of inspection-trip and laboratory reports written by upper-class men.

INSPECTION TRIPS AND ELEMENTS OF SHOP PRACTICE.[1]

(*Cf.* Instructions for Eng. 41.)

Dates. SEC. 1.	SEC. 2.	
Sept. 21	Oct. 6	Preliminary discussion.
Sept. 24	Oct. 8	Names and uses of small tools.
Sept. 29	Oct. 13	Measuring tools and gauges.
Oct. 1	Oct. 15	Micrometers and verniers.
Oct. 20	Nov. 3	Foundry tools and appliances.
Oct. 22	Nov. 5	Description of Cincinnati waterworks.
Oct. 23	Nov. 6	Inspection trip No. 1.—California waterworks.
Oct. 27	Nov. 10	Discussion of above trip.
Oct. 29	Nov. 12	Foundry materials—types of molds.
Nov. 17	Dec. 1	General foundry methods.
Nov. 18	Dec. 3	Description of foundry to be visited.

[1] This part of the work is not listed separately in the catalogue, but is given in connection with coordination 1, 3, and 5.

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Nov. 20	Dec. 4	Inspection trip No. 2.—Foundry. Laidlaw Dunn Gordon Co.
Nov. 24	Dec. 8	Discussion of foundry trip.
Nov. 26	Dec. 10	Review and quiz on work to date.
Dec. 15	Christmas vacation.	Materials of mechanical construction.
Dec. 17		
Christmas vacation.	Jan. 5	Names and uses of machine tools.
	Jan. 7	
Jan. 12	Jan. 26	Methods of removing metal by machine tools.
Jan. 14	Jan. 28	Description of machine shop to be visited.
Jan. 15	Jan. 29	Inspection trip No. 3.—Machine shop. The Cincinnati Milling Machine Co.
Jan. 19	Feb. 2	Discussion of machine shop trip.
Jan. 21	Feb. 4	Reasons for different types of each of the standard machine tools.
Feb. 9	Feb. 23	Some types and uses of electrical machinery.
Feb. 11	Feb. 25	Description of power plant to be visited.
Feb. 12	Feb. 26	Inspection trip No. 4.—Power plant. The Oakley Colony Power Plant.
Feb. 16	Mar. 2	Discussion of power plant trip.
Feb. 18	Mar. 4	Arrangements of A. C. and D. C. circuits.
Mar. 9	Mar. 23	Materials of electrical construction.
Mar. 11	Mar. 25	Description of electrical plant to be visited.
Mar. 12	Mar. 26	Inspection trip No. 5.—Electrical manufacturing plant. Bullock Electrical Mfg. Co.
Mar. 17	Mar. 30	Discussion of electrical trip.
Mar. 18	Apr. 1	Precautions necessary around electrical work.
Apr. 6	Apr. 20	Hardening and tempering.
Apr. 8	Apr. 22	Casehardening and annealing.
Apr. 9	Apr. 23	Inspection trip No. 6.—Chemical plant. Jarecki Chemical Co.

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ENGLISH 41.[1]

(One hour a week.—Given in connection with Coordination 1, 3, and 5, and Chemistry. Prerequisite—Entrance requirements in English).

Object.	Method.	Matter.	Mechanism (administration).
To develop the ability to organize material into a clear and comprehensive report. To review and apply the principles of composition. To discover weaknesses in the writing ability of individual students. To correct faults in expression, particularly in such matters as paragraphing, sentence structure, spelling, and punctuation. To increase the student's vocabulary and to make him more accurate in the use of words.	Lectures on the principles of composition as applied to the writing of reports. Written instructions to guide the student in writing reports. Examples of good and bad form in inspection—trip reports. Criticism of reports by the instructor and the class. Revision and rewriting of reports by the students. Conferences with individual students. Additional study and practice required of those students who show poor preparation in English. Technical terms supplied and explained by the department of coordination. Credit given for form as well as for content in all written work, regardless of the branch of study involved.	The whole composition and the paragraph: Subject, purpose, material, organization—unity, coherence, and emphasis. The sentence. Vocabulary: Technical terms; general and specific words. Spelling; punctuation; abbreviation; use of figures; style in engineering reports; and standardization of mechanical details, such as covers, margins, paragraph indentations, position of titles and headings, writing of formulas and chemical equations, placing of sketches, and indorsement of manuscripts.	All reports graded for English as well as for subject matter. On a blackboard record reports are checked when received, and grades in English are recorded before the reports are passed on to the department of coordination. Card catalogue[2] of individual students contains record of the following details for each report: Organization, sentence structure, vocabulary, spelling, punctuation, manuscript, and grade in English. Sketch required with each report. Manuscripts written on uniform paper and bound in standard manila covers. Students meet regularly in groups of 6 to 8 for the criticism of reports.

[1] From "Cooperative Courses in English for Engineering Students," by C. W. Park, Bull., Soc. for Promotion of Engineering Educ., Vol. V., No. 9, May, 1915.

[2] The following is a typical card used for this purpose:

....

Name of student..... Course..... year.....

Grade.	Organization.	Sentences.	Vocabulary.	Spelling.	Punctuation.	Remarks.
Ex. 1.....						
Ex. 2.....						
Ex. 3.....						
Ex. 4.....						
Ex. 5.....						
Ex. 6.....						
Ex. 7.....						

It will be observed that the operation of the course just outlined is made as nearly automatic as possible. Smoothness of administration is perhaps the chief essential to success in cooperative courses, and it is for this reason that written exercises regularly required in other departments were made the basis of the course. It will also be noted that, in the division called "Matter," a portion of the theory usually taught in separate English composition courses is included. By distributing the theory in this way through the various cooperative courses, considerable time is saved for literature and literary composition in the regular course in English.

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APPENDIX B.

A BIBLIOGRAPHY OF THE COOPERATIVE SYSTEM.

[A complete record of the published matter dealing with the cooperative system would necessarily include many newspaper articles, for from its very beginning the cooperative plan has received a great deal of attention from the general public, as well as from educators and technical men. The newspaper material given here is restricted mainly to a few articles which mark important dates and events in the development of cooperative education, or which report papers and discussions not elsewhere published. It is to be regretted that the original paper proposing a cooperative scheme for technical education, which was submitted by Dean Schneider in 1902, has not been printed. The main propositions set forth in this paper are embodied in the section on the cooperative idea, page 7 of this bulletin.]

Another important development in industrial education. (Editorial.) American engineer and railroad journal, October, 1909.

Another phase of cooperative engineering. (Editorial.) American machinist, June 11, 1908.

Ayer, Fred E. A cooperative course in civil engineering. Concrete engineering. June, 1909.

Board of directors adopts cooperative scheme. (Editorial.) Cincinnati commercial tribune, April 17, 1906.

Cooperative industrial training. Chattanooga times, January 16, 1910.

Urges the adoption of the cooperative system in the University of Chattanooga.

Dabney, Charles William. The university and the city in cooperation. Outlook, July 25, 1908.

Du Brul, E. F. The Cincinnati plan of cooperative technical education. Cincinnati commercial tribune, May 25, 1908.

A paper read before the National association of manufacturers at its 13th annual meeting, New York City.

——— Cooperative industrial education. American machinist, January 20, 1910.

Abstract of a supplementary report of the committee on industrial education of the National association of manufacturers.

——— A young instructor and his big dream. American magazine, May, 1909.

Faig, John T. The effect of cooperative courses upon instructors. *In* Society for the promotion of engineering education. Bulletin, March, 1913.

Fish, E. H. The status of cooperative schools. American machinist, August 8, 1912.

Gingrich, Charles E. The cooperative engineering course at the university from the manufacturers' standpoint. Cincinnati, University of Cincinnati [1907].

A paper presented at the 15th annual convention of the Society for the promotion of engineering education, July 3, 1907.

Halsey, F. A. Cooperative education at Fitchburg. American machinist, January 20, 1910.

Hartman, Lelia A. The cooperative course in engineering at the University of Cincinnati. *In* American association of collegiate registrars. Proceedings of 6th annual meeting, April 6, 1915.

Learning through doing. (Editorial.) Scientific American, June 26, 1915.

Manley, J. M. Shop practice in the engineering course of the University of Cincinnati. American machinist, June 13, 1907.

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Matschoss, Conrad. Die geistigen Mittel des technischen Fortschrittes in den Vereinigten Staaten von Amerika. Unmittelbares Zusammenarbeiten von Industrie und Schule. Berlin, 1913. p. 41–44.

Mearns, William. The boy in the blue blickey. Saturday evening post, January 25, 1913.

More, Louis T. A new scheme for engineering education. Educational review, October, 1908.

Mühlmann, Karl. Reiseberichte über das technische und gewerbliche Schulwesen Nordamerikas. Chemnitz, 1913. p. 33–34.

New York railroad club. Proceedings, New York, February, 1909.

Discussion: p. 1342–1344.

Park, C. W. Cooperative courses in English for engineering students. *In* Society for the promotion of engineering education. Bulletin, May, 1915.

Plan for a national university. (Editorial.) Engineering record, March 7, 1914.

Royal commission on industrial training and technical education. Report of the commissioners. Part 3, vol. 2. Ottawa, Canada, 1913. p. 1375–1394.

See also pt. 2. p. 132–134.

Schneider, Herman. The cooperative course in engineering at the University of Cincinnati. Cincinnati, University of Cincinnati. [1907.]

A paper presented at the fifteenth annual convention of the Society for the promotion of engineering education, July 3, 1907. Reviewed in Engineering magazine, 34:354, November, 1907.

——— Cooperative engineering education. Railroad gazette, July 15, 1910.

From a paper read at the annual meeting of the Society for the promotion of engineering education, Madison, Wis., June 25, 1910.

——— Cooperative industrial courses. *In* Special features in city school systems. U. S. Bureau of Education. Bulletin, 1913, no. 31. p. 10–20.

——— Education and industrial peace. Annals of the American academy of political and social science, November, 1912.

——— Education and industry are hitched. Manufacturers' news, November 21, 1912.

——— Education for industrial workers. *In* New York city. Board of estimate and apportionment. Committee on school inquiry. Report. New York, 1915.

Published separately in the School efficiency series. 1915.

——— Energizing and enervating kinds of work. Literary digest, January 13, 1912.

——— Fundamental principles of industrial education.

A paper presented at a special meeting of the American institute of electrical engineers, New York, April 16, 1909.

——— Partial time trade schools. Annals of the American academy of political and social science. 33:50–58, January, 1909.

——— Selecting young men for particular jobs. *In* National association of corporation schools. Bulletin, vol. 7, September, 1914. p. 9–19. 3d annual convention.

See also National association of corporation schools. Proceedings, 1915. p. 458–460.

——— Public school and the day's work. Annals of the American academy of political and social science, July, 1911.

——— Report on a plan of organization for cooperative and continuation courses. New York, Department of education, 1914.

——— Selecting young men for particular jobs. American machinist, April 10, 1913.

Part of a paper read before the Cincinnati high schools teachers' association, February 15, 1913.

——— Statement concerning the cooperative system before the Committee on education. Washington, 1914. (63 Congress, 2d sess., Congressional record, House journal, Jan. 26, 1914.)

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INFORMATION CIRCULARS RELATING TO GARDENING.

1. Instructions for School Supervised Home Gardens.
2. A Course in Vegetable Gardening for Teachers.
3. The Winter Vegetable Garden.
4. Organic Matter for Home Gardens.
5. Hotbeds and Coldframes for Home Gardens.
6. Raising Vegetable Plants from Seed.
7. How to Make the Garden Soil More Productive.
8. Planting the Garden.
9. Part Played by the Leaf in the Production of a Crop.
10. A Suggestive Schedule for Home-Garden Work in the South.
11. List of Publications for the Use of School Home-Garden Teachers.

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DEPARTMENT OF THE INTERIOR
BUREAU OF EDUCATION

BULLETIN, 1916, No. 40

GARDENING IN ELEMENTARY CITY SCHOOLS

I. Why Gardening Should be Introduced Into the Schools
II. How Gardening May be Introduced into the Schools
III. How Gardening May be Promoted by the Schools

BY

C. D. JARVIS
BUREAU OF EDUCATION

WASHINGTON
GOVERNMENT PRINTING OFFICE
1916

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LETTER OF TRANSMITTAL.

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION,
Washington, March 3, 1916.

SIR: The widespread interest in gardening directed by the schools, especially in cities, suburban communities, and manufacturing districts, which interest has been greatly stimulated by the activities of this bureau, has created a demand for some comprehensive statement of the best means of organizing and directing this work, to the end that the largest possible educational and economic results may be obtained. To meet this demand the manuscript transmitted herewith has been prepared by Dr. C. D. Jarvis, chief of the School and Home Garden Division of this bureau. I recommend that the manuscript be published as a bulletin of the Bureau of Education.

Respectfully submitted.

P. P. CLAXTON,
Commissioner.

The SECRETARY OF THE INTERIOR.

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INTRODUCTION.

This pamphlet has been prepared for the benefit of school officials and others who are interested in the promotion of gardening in the elementary schools of towns and cities. It attempts to show briefly how productive gardening contributes to the needs of the school and how the work may be organized and administered.

Like most recently accepted school subjects, gardening has been introduced largely as a result of outside pressure. The school has been remarkably responsive to public demand in this respect. This response on the part of the schools is becoming more acute, and it is a promising indication to find that the leading school administrators are recognizing gardening and are prepared to give it a place in the curriculum. From the standpoint of financial support, also, gardening has had to pass through the same troublous vicissitudes as music, manual training, drawing, and home economics. Like these, it has been financed and its value demonstrated largely by outside influence. School boards are just beginning to make provision for the financial support of this subject.

Like these earlier accepted subjects, gardening has been hampered also by the lack of efficient teachers. Its purposes have been misinterpreted, and it has been used as a means to an end rather than as a subject having real value in itself. The economic, or industrial, phases of the subject oftentimes have been supplanted entirely by the intellectual and esthetic phases. Teachers, also, have been too easily satisfied with the results of their efforts. They have been content with results which they believed to be phenomenal, but which, in the light of the best examples, fall far short of the real possibilities. Some recent and remarkable achievements of individuals and of groups of children working under competent instructors have done much to broaden the public vision concerning the possibilities of gardening, but it will be many years before the full value of the work can be demonstrated.

A knowledge of the conditions and factors operative with regard to earlier additions to the curriculum, however, should help in determining the kind of treatment that should be given any new aspirants for recognition. Administrators who would be abreast with the times in education will not wait, as formerly, for the slow recognition and evolution of a new and worthy school subject. They will

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yield promptly to insistent outside demands and adjust their organization to meet them.

So far as gardening is concerned, most educational administrators believe that gardening is good for children and that it is a worthy school subject. In view of this, it would seem unnecessary, at this time, to set forth arguments to show why it should be introduced into the school, but there are a few who still need to be convinced of its value, and many who fail to realize its full significance.

While the present study is based more upon expressed opinions than upon a statistical inquiry, an attempt, nevertheless, has been made to gather some information regarding the status of gardening in the schools. A letter of inquiry was directed to superintendents of all cities of the country having a population of 5,000 or over. The replies were not amenable to definite classification, but much useful information has been gathered. In all, 820 replies were received. A keen interest in the subject was expressed by 647 superintendents, of whom 402 stated that garden work for children was encouraged by the school either independently or in cooperation with some local organization. Thirteen superintendents stated frankly that, under their peculiar conditions, gardening was not worth while. The remaining 160 failed to express themselves in any way, except to say that no garden work had been done.

Naturally, as with any pioneer activity, mistakes in organization have been made in gardening work. Many debatable questions, also, have arisen concerning methods of administration. The main purpose of this pamphlet, therefore, is to present a feasible plan for the promotion of gardening in the schools and to discuss contending issues regarding the administration of the work.

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GARDENING IN ELEMENTARY CITY SCHOOLS.

I. WHY GARDENING SHOULD BE INTRODUCED INTO THE SCHOOLS.

NEED FOR ADJUSTMENT IN EDUCATION.

Most of the criticism of the school to-day is based upon its failure to meet the living needs of boys and girls. After full acknowledgment is made of the progress and achievements of the educational system, it is quite generally believed, even by school administrators themselves, that the traditional methods of training are not meeting effectively the present needs. The most serious charge in the indictment of the school is that it has not kept pace with the ever-changing industrial and social conditions. Before the days of marked centralization of population most of the industries were associated with the home, and boys and girls had an opportunity to share in the varied activities. This active participation in affairs is no longer possible with a large proportion of the younger population. The problem, therefore, is one of finding ways and means for bringing about adjustment in education to meet these new-born needs.

It is believed, and an attempt here is made to show, that there is no more available and effective way for bringing boys and girls into closer relationship with their environment and the affairs of life than that offered by productive gardening. In or about almost any city there may be found an abundance of land that may be used for this purpose. Within the limits of many cities there is sufficient land, if intensively cultivated, to supply the people with all the vegetables and a large portion of the fruit and flowers needed. For example, it is stated that the city of Minneapolis, before starting the vacant-lot gardening movement in 1911, had at least 5,000 acres in the form of vacant lots. A recent inquiry reveals that in Greater New York there are 186,000 vacant lots. The amount of land in the form of back yards probably would exceed these areas. This unused land, for economic reasons alone, should be brought under cultivation. The back yards that now are utilized are not producing returns equal to one-tenth of what they are capable.

To make the best use of this land for educational and productive purposes, trained and experienced teachers of gardening should be employed. Such teachers would instruct, directly, the children,

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and, indirectly, the parents, with the result that in a few years a generation of capable gardeners would be developed. But the development of strong-bodied, efficient, and contented citizens is the real purpose and the main result of this work. With a common knowledge of the principles and possibilities of crop production, the wage earner of the future will not need to measure his income solely by the size of his pay envelope. He will consider, also, the productive capabilities of his garden plat and the extent to which it will reduce the cost of living. He will see the advantages of a suburban home, contrasted with the crowded and unwholesome tenement.

GARDENING AND DEMOCRACY IN EDUCATION.

There is no doubt that there is, the country over, a demand for something different in education. The demand is not only for better methods, but it is for a more democratic system—a system that will benefit a larger proportion of the people and benefit them more equally.

It is not necessary to bring in statistics to show the great inequality in education. It is enough to say that, as shown by Ayres,[1] only about half of the total enrollment of children in the schools reach the final elementary grade, and about 10 per cent reach the final year in high school.

In many schools, especially in the mill sections of the South, few or no children will be found in the seventh and eighth grades. The full significance of this condition is not realized until a visit has been made to the gates of the mills at closing time. Here is where most of the children of the community may be found. As the young faces appear through the gate these questions naturally present themselves: What would have been the effect of a few years more of schooling upon the life of this pleasant-faced girl or this intelligent-looking boy? Would not these girls and these boys have been able better to perform their duties as citizens and to have contributed more and better service to the community and the Nation if they had been given a definite training for some occupation before entering the mill? What would have been the cost and the interest on the investment to the Nation if these children could have been given two or three years' additional training for their life work? How will this dwarfing of body and mind affect future generations? Then, as the careers of these young people are followed up in the imagination, there comes a conviction that something should be done to insure a better training for the masses.

Why the parents lose interest.—During recent years, many impressive arguments to show why and how our school system should be

[1] Ayres, L. P. "Laggards in Our Schools," 1909, p. 31.

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changed have been presented, and educators have declaimed tirelessly and written unceasingly concerning the industrial, agricultural, and commercial needs of education. The most convincing argument, however, for something better in education is found in the silent demand of the common people. The amazing number of children who leave school on or before reaching the legal age limit shows more effectively than anything else can that parents and children are not satisfied. The only reason that they do not call loudly for a change is because they do not know of anything better.

Many reasons for children quitting school have been brought out by investigation, but most of them, in the last analysis, may be grouped under the one head, namely, parents do not believe it is worth the effort and expense. They know that there are many opportunities in the industrial and commercial fields for children to learn to be self-supporting. They can not see how two or three years' more schooling of the common type will make any difference, for ultimately the child must adopt some other way to learn to earn.

It is not surprising, therefore, that parents permit their children to quit school upon approaching the legal age limit. As previously indicated, many parents are obliged to take their children from school because their wage-earning support is needed, but whatever their reason, it is quite certain that such action would be deferred for one, two, three, or four years, if their children should be provided with a wholesome, purposeful, and remunerative employment while attending school.

Why children lose interest.—Children, also, for reasons not hard to find, lose interest in school and bring pressure upon parents to allow them to quit. Parents, in their uncertainty regarding the value of further schooling of the common type, and in the stress of circumstances, are easily prevailed upon. If school work should be made sufficiently attractive to hold the interest of boys and girls, parents would be prevailed upon from the opposite standpoint, and many of them would be willing to make personal sacrifices to satisfy the whims of their children and to give them a better opportunity. School work therefore needs vitalizing. It needs something that will bring it into closer touch with the life of the child. Such contact not only makes it easier for children to acquire the tools of knowledge, but it may be the source of knowledge itself.

Many conscientious teachers apparently are sacrificing much time and effort in making it possible for the children in their charge to get experience in gardening. They believe that the effort is worth while in that it makes children alert and active, and makes teaching easier. Children can grasp principles of mathematics more readily when concrete problems are employed. They can compose more intelligently when the subject in hand is based upon their own experience.

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Teachers claim, also, that children who are engaged in gardening are more easily governed.

It is not difficult to see how gardening may bountifully serve in the democratizing of education. With the application of intensive and modern methods, gardening may be made so profitable that parents will be able to keep their children in school longer and the desire of children to earn money shall be satisfied without their quitting school. Boys and girls can practice gardening while attending school, and earn as much, or nearly as much, money for the family as they can by giving up school and going to work at any of the common occupations of children. With such instruction provided by the schools, thousands of children should be able to get a high-school training who now find it beyond their reach.

GARDENING AND VOCATIONAL GUIDANCE.

According to the 1910 census, 95 per cent of the people of the United States are engaged in either agriculture, industrial work, commerce, or transportation. The present system of education offers little opportunity for children to gain any idea of the character or possibilities of these predominating occupations. If boys and girls are to select from any of the occupations for which our schools prepare them, they must choose one in an already overcrowded field.

Schools are just beginning to interest themselves in the future of children after leaving school. Some cities are now keeping a record of where children go and the nature of their occupations. Thousands of boys and girls leave school every year at 14 or 15 years of age. The quitting of school and starting out on life's duties, with the responsibilities of earning a living and contributing to the support of the family, is a serious undertaking, and probably is the most important phase in the whole career of the individual. Is it not remarkable, therefore, that the schools, whose duty it is to prepare people for their life work, have not given more attention to this vital step in the child's life?

Farmers are bewailing the fact that their sons and daughters are leaving the farms and taking up occupations in the city. They shower the blame for such an alarming tendency upon the school system. As a matter of fact, the combination of home and school training in the rural districts has been remarkably successful in preparing men and women for life, citizenship, and service in the city, and for this reason the young people of the country have found wonderful opportunities in the city. They have proved to be more resourceful, more self-reliant, and stronger in mind and body than the city youth who have not had the opportunity for getting that active experience afforded by life on the farm.

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It is true that the lack of proper perspective and other causes have attracted young people to the city, but why should an attempt be made to head off this tendency? The city needs these people with their peculiar fitness for service. Who is prepared to say that all the boys and girls born in the country should remian there? It is just as absurd, and decidedly more cruel, to demand that all the children born in the city should be kept there. With the present system what chance is there to offset this trend cityward by directing some of the city youth to the country? What is there in the city schools that will help a boy in judging the value of agriculture as a vocation, and what is there to bring out natural tendencies and a desire to prepare for such a calling?

Gardening is one of the most intensive forms of agriculture. It demonstrates maximum possibilities from the cultivation of the soil, it provides an opportunity for conducting a large business with a small investment, and it involves the fundamental principles of crop production. For these reasons gardening in city back yards and vacant tracts of land, when properly managed and when adequate instruction is furnished, supplies a long-felt need in the matter of vocational guidance in one of the important occupations.

GARDENING DEVELOPS THRIFT AND INDUSTRY.

The question as to how to develop thrift and industry in city boys and girls is one that is frequently asked. It can not be done by exhortation or delineation. These attributes are the results of experience. They are acquired, not taught. They may be regarded as normal habits, for most children display them before they have acquired habits of extravagance and idleness. For this reason, it is important to encourage the development of these qualities at the most receptive age.

Some provision, therefore, should be made, either at home or school, or at both home and school, whereby children may get experience in the active affairs of life. This experience should be of such a nature that it will maintain the interest of children. It must be supplied in the form of a real and profitable enterprise. There must be a strong motive back of the enterprise, and usually the strongest motive from the standpoint of the child is a monetary one. Prizes have often been offered for this purpose, but these have only a temporary effect. The real result of achievement should be the motivating force, for this will last as long as the child continues to achieve.

Children should be taught the value of money as measured by work. Their duties and obligations to the home, the community, and the State should be demonstrated in a real, effective way. To

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do this, some means for contributing to the support of the family should be placed within their reach. They should at least be taught that there is no place for people who are not willing to support themselves. Some form of productive enterprise, as suggested, should show also that a man's worth is measured largely by his ability to produce, and that the wealth and prosperity of the nation is mainly dependent upon the productive powers of its citizens.

The schools, of course, should not stop at the point where children have been trained and shown how to earn, but they should point out the common ways in which money is wasted and how it may be wisely expended. School children often spend enough for chewing gum, candy, soda water, cigarettes, moving pictures, and useless and unbecoming ornaments of dress, to pay the salary of their teachers. Assuming that an average of 5 cents per child per day is spent for these unnecessary items, the annual waste by all the children enrolled in the public and private schools in this country amounts to about four hundred million dollars.

The schools have a wonderful opportunity, therefore, to encourage economy and saving. Where children are able to make enough money to start a bank account, they are encouraged to save more, and much of the money that otherwise would be spent for unnecessaries would be added to the savings account. In one school in Chicago a record is kept of the earnings of the pupils during out-of-school hours, of the nature of the work, and of how the money is expended. The amount earned during the fiscal year ending July 1, 1915, was $5,853.61, of which $1,530.30 was earned from gardening. The money was disposed of as follows:

Put in bank	$2,015.10
Put in home banks	408.83
Given to parents	2,278.88
Expended for clothing	602.25
Pleasure	356.47
Outings	15.00
Machines	39.58
Miscellaneous	137.49

This is mentioned here especially to show the importance of keeping such records, and how they may be used in teaching thrift and industry.

There is no more available nor more suitable enterprise for the development of thrift and industry in children than that of intensive and profitable gardening. In the discussion relating to the promotion of the work, it is shown more clearly how gardening serves this useful purpose.

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GARDENING AND THE CHILD-LABOR PROBLEM.

During recent years there has been much controversy and considerable legislative agitation over the question of child labor. Much has been accomplished, but at the same time a great deal of effort has been misdirected. Some people have the idea that all work is harmful to children. They fail to distinguish between work and labor and between wholesome and unwholesome employment. Wholesome work is good for boys and girls, and normally they joy in it. Commissioner Claxton, in speaking of the employment of children, has said: "We should not sweat them in the shops, grind them in the mills, nor bury them in the mines, but all children should learn to work."

More attention, therefore, should be given to the problem of providing for children a wholesome as well as a remunerative kind of employment. The schools should prepare the boys and girls for the earning of a living and demonstrate for them the possibilities in certain kinds of employment.

Some achievements.—Attention has been called recently to a few striking examples of individual achievement. Two sisters in Deer Lodge, Mont., made a net profit of $256.60 from the sale of fresh and canned vegetables. A girl in Iowa Falls, Iowa, cleared $114.05 from growing and canning tomatoes. A 17-year-old high-school boy of Marshalltown, Iowa, conducted a market-garden project in which his gross receipts amounted to $1,146.30. After deducting the amounts paid out for rent, labor, and supplies, and after charging up his own labor, he had a net profit of $768.75.

A 12-year-old Cleveland girl started gardening in 1909 and has made a splendid record during the past seven years. From a plat 52 feet square she has raised vegetables for the home and, in addition, has made a specialty of growing flowers, for which she has created a ready market. Her net receipts from flowers during the seven years are as follows: In 1909, $18.45; in 1910, $35.40; in 1911, $59.10; in 1912, $161.85; in 1913, $253.83; in 1914, $242.74; in 1915, $285.63. The total for seven years amounts to $1,057. With this money, she says: "I am able to buy all my schoolbooks, clothe myself, spend some for pleasure, and still add to my bank account."

A teacher in Mitchell, S. Dak., writes: "In one case three children in a family, where the mother is a widow, are earning enough to buy all of their clothes and help in the family expenses."

From these pioneer results it may be seen that gardening as an occupation for children may be made as remunerative as many of the "blind alley" occupations commonly followed. If school children are instructed in the art of gardening and the possibilities of such an occupation demonstrated to them, many will be directed to it either as a temporary or permanent means to a livelihood. In this it is a good substitute for hurtful child labor.

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GARDENING UNITES HOME AND SCHOOL.

There is a growing belief that there should be closer cooperation between the school and the home in the matter of education. Both teacher and parent are often misunderstood by one or the other. Some administrative officers require their teachers to make periodic visits to the homes of the children. Visits that are made for no apparent reason are likely to be very formal, and result in nothing more than embarrassment for both teacher and parent. Home gardening, under the personal direction of a teacher, offers an easy and informal introduction to the home. It does more than that; it convinces the parents that the school has a personal interest in their children and that it is anxious to give them something of value in the earning of a living. In discussing the results of gardening in a New Jersey city school, the superintendent writes: "The school was hard to govern until gardening was introduced by a live teacher. This created a great change in the school and community."

GARDENING AND RECREATION.

No one doubts the need of wholesome exercise for school children. If playgrounds can not be provided and more or less supervision afforded, some other way should be found to engage the attention of the children during out-of-school hours. The evils attending and following idleness are well known, but thousands of our city children are still without any opportunity for play or other wholesome exercise. In children the spirit of play, or the acuteness of vigor, is natural, and nothing should hamper its development. Gardening often has been suggested as a substitute, and, from the standpoint of the city child, it is, in a large degree, play. It is more than play, however, and interest may be intensified by magnifying rather than minimizing the importance of the enterprise.

Recreation is needed for others than school children. Business and professional men appreciate the value of recreation, but oftentimes neglect it for lack of interest. If such men understood the principles of gardening, they would find sufficient incentive to exercise and would take much pleasure from work in the home garden during the evening hours.

GARDENING AND HEALTH.

Much is heard of open-air schools for anemic and tubercularly inclined children. If such schools are conducted on the same sit-still method that is the rule with normal children, these delicate boys and girls deserve a twofold sympathy. Such children need an opportunity for learning while they work. Garden work, supplemented by shopwork and home-making exercises, should supply this need.

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It is not only the few conspicuously weak children that should receive attention. Many children in these days are predisposed to nervousness, and our quiescent method of training aggravates the trouble. If some interesting form of exercise or employment should be provided; fewer children would be forced to quit school at an early age on account of poor health, and fewer of them would be physical wrecks on the completion of their school careers. Gardening, again, is a most accessible means for supplying this need. Boys and girls who are not interested in outside games often are attracted by gardening. Such an occupation furnishes simultaneously both physical and mental exercise, and with it a compelling motive which is so essential in recreation for the young.

By the study and observation of the vital processes of plant reproduction, children solve for themselves the mysteries pertaining to sex hygiene. The practice of gardening also offers many opportunities for unconscious instruction in health preservation. Boys and girls may be shown how their strength may be conserved by the proper use and selection of tools and by the proper position of the various parts of the body and the body as a whole.

GARDENING AND MORALITY.

The boys and girls of the garden and canning clubs throughout the country have for their motto, "A training for the hand, the head, the heart, and the health." The choice of this motto was a happy one, for, as results have shown, these boys and girls have received a many-sided training. Such a motto is a fitting one for schools to adopt. If the schools do not train boys and girls from this quadruple standpoint, they are not living up to their opportunities.

In the making of useful citizens it is necessary that children be given a moral training, and the schools should assume this responsibility. Such a training is more easily and effectively furnished as an adjunct to other lines of effort. The great moral law, "Do unto others as you would they should do unto you," means little to a boy until he has learned this truth from experience. To tell a boy that "honesty is the best policy" is largely a waste of time unless the truth of the statement can be demonstrated. In the training of the heart, therefore, it is necessary to bring within the range of the child's experience an opportunity to test unconsciously the validity of these great moral laws. This opportunity should be presented early in the life of the child, or before habits of dishonesty have become fixed. The testing of the validity of these laws later in life is a dangerous undertaking and usually results in failure in business or a prison sentence.

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Most of the boys and girls who are brought before the juvenile court are victims of idleness or poverty. It is remarkable that many of these young people who have gone wrong are the brightest and most capable boys and girls. The children who, from poverty, are tempted to steal are frequently the most ambitious. They are not satisfied with their conditions, and if shown a better opportunity probably would be the first to grasp it.

To meet their obligation the schools should provide some kind of experience that affords opportunities for lessons in business integrity and moral courage, and at the same time show children how they may, in one way, at least, earn an honest living. Gardening, when conducted on a profitable and business basis, meets this need better than anything else can. It not only supplies this need, but it gives children something wholesome to do and something wholesome to think about. While their hands and their minds are thus engaged, they are safe from many of the evils of idleness and the dangers of the contaminating and not infrequent vicious surroundings.

The association of boys and girls with growing plants, alone, will do much toward making better citizens. To make it possible for children to acquire a knowledge of the wonderful provisions of nature and the convincing manifestations of the existence of a supreme power is to exert a greater influence for good than is possible through any other agency. The following paragraph from a report by Miss Annie L. Burke, who has charge of gardening in the schools of Brockton, Mass., will furnish additional testimony on this point:

> I could give many illustrations of good results. I shall give but one. A boy of 12 was unruly, unmanageable, and his father conferred with the school principal about sending him to some corrective institution. He became interested in gardening and from that time has been a changed boy. He secured $11.50 in prizes at our September exhibit. A more enthusiastic lad it would be hard to find. His father and mother are very proud of him. Our gardening would have been well worth while had we but saved that one boy.

GARDENING AND THE JOY OF LIVING.

As Spencer has pointed out, education should fit a man to get the fullest enjoyment out of work and enable him to utilize his leisure time wisely and happily. Except for the satisfaction that comes from the ability to earn a living, to conserve the home and care for children, and to perform the duties of citizenship, there is no greater source of pleasure than that afforded by a knowledge of the phenomena and forces of nature. The schools, therefore, miss an opportunity and fail in an obligation if they do not provide means for children to get in close touch with nature. It is not enough that such an opportunity be afforded pupils in secondary schools and colleges, but it should be within the reach of the children in the grades.

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Here, again, gardening offers a useful service. The teaching of nature study in schools has been advocated for a long time, but little progress has been made so far as the elementary schools are concerned. Nature study, to meet the demands of the younger children, needs motivating, and the practice of productive gardening supplies this need.

The ability to grow plants and to use them in home adornment is a great satisfaction to any man. If more people possessed such ability, and at the same time, appreciated the value of land for productive purposes, city homes would be more attractive, back yards more sanitary, and the dwellers more contented.

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II. HOW GARDENING MAY BE INTRODUCED INTO THE SCHOOLS.

The slowness with which the schools have introduced gardening is not due so much to apathy as to the lack of ways and means for its promotion. The possibilities of gardening in city schools are so great that in some places remarkable strides have been made with very little effort. In many places the work has been started and carried on voluntarily by a few conscientious teachers. So firmly convinced are they of its value that they have made personal sacrifices in order that the children in their charge may get the benefits of this wholesome occupation. In other places, civic leagues, women's clubs, parent-teacher associations, chambers of commerce, and other organizations have encouraged the work, with varying degrees of success.

Many school boards within the past few years have made provision for gardening, and various methods for administering the work have been tried. As is usually the case in new undertakings, mistakes have been made. For the success of the movement there are too many conflicting recommendations, and progress will be slow until the promoters adopt a common plan and establish a number of demonstrations to serve as examples.

WHO SHOULD CONTROL CHILDREN'S GARDENS?

1. *The school.*—There is no doubt that the school is the logical organization for promoting gardening among children. It is dedicated to the complete training of children and should be able to conduct all educational activities more effectively and economically than any other organization. It is everybody's institution and should have the support of all the people.

2. *Other city departments.*—In many cities the garden work for children has been placed in charge of some department other than that of education. The work in some places is looked upon as little more than recreation and, in consequence, has been relegated to the department of public recreation. In other cities the ornamental, or civic improvement, idea seems to have dominated the garden activities, and as a result the work has been committed to the department of parks. Other cities have placed the work under the direction of a special commission. Where the work is under the control of any city department other than the school, it is likely to be used—and there are many cases where it has been used—to furnish political

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capital. No opportunity like this should be afforded for the exploitation of children in the interests of politics.

There is need for close cooperation, however, between the departments of the city government as they affect the work of gardening. The street-cleaning department may render good service by way of contributing street sweepings. The department of parks may cooperate by supplying labor, teams, and tools for special emergencies. The health department also may contribute to the cause by requiring back yards and vacant lots to be cleaned up and in this way made available for gardening.

3. *Local organizations.*—There are many cities where gardening for children is under the control of one or more of the various local organizations, such as women's clubs, parent-teacher associations, civic leagues, chambers of commerce, and the like. These organizations have done much to demonstrate the value and possibilities of the work and to popularize the movement. The changing of the personnel and policies of local welfare and commercial organizations, however, is not conducive to permanency. Furthermore, such organizations usually depend wholly or partially upon the voluntary aid of their members, and children are often swamped with advice which, although well intended, is often more bewildering than helpful.

These local organizations usually are conscious of their shortcomings and are promoting the work because they believe in it and because the school has not grasped its opportunity in this direction. In many places the work has been voluntarily turned over to the school as soon as the school was prepared to handle the work. Indeed, many of the best examples of gardening effort are those that were started by local organizations and later turned over to the school.

These organizations can be of great service to the school, not only in bringing about a sentiment favorable to the work, but also by way of supplying a market for the produce raised by the children. Their efforts in this direction may consist in providing local public markets for children's products and by purchasing from boys and girls their supplies of vegetables, fruits, and flowers.

4. *Corporations.*—Private concerns and corporations often have devoted much effort and expense to the promotion of gardening among children. This action has been prompted, no doubt, both by altruistic interest in the welfare of the families of their employees and by the more selfish interest in the profits of the company concerned. The gardens cultivated by the children under skillful direction contribute much to the education of the children, to the living of the workmen's families, and to the attractiveness of their homes. At the same time they tend to make the employees more content with their work and wages.

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The efforts of these concerns have been worth while, both from the humanitarian and economic standpoints. Even greater results, however, should be attained if the work were in closer cooperation with the school. Some concerns have seen the necessity for this, and have provided the local schools with facilities for doing this work. In some cases the corporations maintain independent schools, of which gardening forms a part.

KINDS OF GARDENS.

Confusion of names.—There is considerable confusion of names applied to children's gardens, and there seems to be an extremely faint line of distinction between the various kinds. For discussion here it is sufficient to recognize two main groups: First, those located upon school grounds, or land controlled by the school, and known as "school gardens"; and second, those that are located on the home lot or land controlled by the home, and known as "home gardens."

Some difference of opinion prevails at the present time over the respective merits of these two types of gardens, and as to whether one or both types should be maintained. In reality, there is not so much difference between the types as between the purposes each is intended to serve. There is a place for both types of gardens, as they are generally understood. There are conditions where one is entirely impracticable, and also conditions where the other fails to satisfy the demand.

The school garden.—This term has been applied to a great many kinds of enterprise, and, in its broadest sense, may include all forms of children's gardens under school direction or encouragement. In many cases the term has been applied even to gardens over which the school exercises no control. It is sometimes applied to small groups of gardens in vacant lots, and even to individual back-yard gardens, where they are under the direction of the school. In recent controversies it has been considered in a more restricted sense, meaning an aggregation of individual plat gardens located on the school grounds or on property controlled by the school.

There is another type of school garden which is sometimes called the "school farm" and which is quite popular in certain sections, especially in the Middle West. This kind of a garden is either located on the school grounds or on land near by. It is frequently found in connection with the high schools of smaller towns and the elementary rural schools. It differs from the regular school garden especially in that, instead of providing independent projects, the children work together on a single enterprise, the returns being used for certain school activities, or divided among the pupils who share in the work.

Such gardens are often used as model gardens or demonstration farms. Where the aim is to demonstrate fundamental principles, methods of soil management, possibilities of little-known crops, and

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the like, they perform a useful service; but when an attempt is made to conduct the "farm" as a model or a pattern for other people to follow it usually fails to justify its existence. These consolidated gardens sometimes assume the nature of a field museum or an agricultural botanic garden. When they are well cared for, they serve a useful purpose in familiarizing pupils with the various forms of economic plants.

Where pupils work together in this way under the direction of a good leader, much good is accomplished. Too frequently, however, there is a tendency to shirk responsibility and a large share of the work must be shouldered by a few of the more conscientious pupils. In general, the plan lacks the compelling motive characteristic of the independent, businesslike, individual project.

In most cases the school-garden project is financed wholly or in part from public funds or from voluntary contributions. In this respect, and also in the smaller size of the individual gardens, the scheme differs from the home-garden plan. There are, however, all gradations of form between the school garden and the home garden.

The school garden, in its restricted meaning, is especially adapted to the congested areas of large cities, where available land is scarce. In many cases it is the only solution to the problem of providing garden plats to the children of the neighborhood. So scarce is the land in some places that it becomes necessary to assign the children to plats not exceeding 10 or 12 square feet in area. From such plats children may get a great deal of pleasure and profit, but they can not get a fair idea of the possibilities of gardening or the benefits following the promotion of an independent business enterprise.

A few cities still adhere to this type of enterprise, even though back yards and vacant lots are within reach of most of their children. The tendency at the present time, however, is to adopt the home-garden plan wherever it is practicable. There is a tendency, also, to assign larger plats to children and to conduct them on about the same basis as the home garden. Some schools have both types of gardens, those at the school being used mostly as training plats. This usually works well, but requires more supervision to get the maximum results. A much better plan consists in the use of the plats at school for the children who have no land at home, and to regard them as home plats, giving the individual children full responsibility for their administration.

Some people have felt that there should be at least one garden at the school to serve as a model for the children to imitate. So many things can happen to a model garden, and so often do happen, that it generally fails to demonstrate the principles intended. A demonstration, to serve its purpose, should be under normal conditions, and the best kind of a demonstration is a successful child's garden.

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A plat on the school grounds, where boys and girls may be given practice in spading, raking, hoeing, weeding, thinning, training, pruning, and the like, is very desirable, but such practice should not relieve the instructor of the necessity for home visitations and the furnishing of instruction in the child's own garden.

Some of the early promoters of the school-garden idea, on account of the success of their efforts, have become so wedded to the plan that it is difficult for them to see the necessity for making a change. Judging from a recent investigation, there seems to be a gradual shifting from the old point of view to the new. Twenty-seven city-school superintendents who have been promoting the work along school-garden lines declare that, for various reasons, the plan has been abandoned, and a system of home gardens substituted in its place. The following extracts from the correspondence of some of these superintendents are illuminating:

From Minnesota.—The public schools of this city have maintained a school garden, but have decided to give it up, because the results are not practical. We favor home gardens, where all the material raised may be utilized by the family. On the school-garden tracts it was impossible to prevent marauding by neighbors, and it was also difficult to have the children work there in the summer days when school was not in session.

From Massachusetts.—Our experience with school gardens has not been successful. We have found that such gardens have invariably suffered from marauders. We have had good success, however, with home gardens, and it is to these that I feel that we must devote our energies in the future.

From Wisconsin.—Many gardens, particularly flower gardens, were planted. But the number who kept up the work during the summer vacation and obtained results of which they were proud was small. Hence, after a few years the attempt was discontinued. I can see now that the large part of the difficulty lay in the fact that we did not have help enough and, particularly, we had no one person with sufficient time as well as information to devote to it.

The arguments usually presented in favor of gardens of this type are:

1. Because of their accessibility they may be easily supervised.
2. They may be idealized, and thus serve as compelling examples to children.
3. They serve as school laboratories for studies relating to nature and life.

The chief disadvantages of the plan, compared with the home-garden method, are:

1. The children do not have sufficient responsibility and therefore fail to get the benefits that accrue from the successful and independent completion of a real business enterprise. Projects backed by the school and on land controlled by the school can not fully meet these requirements. Self-reliance should be one of the conspicuous results of garden work, and this comes only from independent effort and achievement.

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A SMALL-PLAT GARDEN AT A NEW YORK PUBLIC SCHOOL.

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2. Because of the limited space usually allotted to children, they are not able to raise enough produce to affect the family incomes materially nor to gain a fair idea of the possibilities in earning a living from the soil.

3. The school garden does not furnish the easy and informal introduction to the home and does not so effectively bring about the full sympathy of the parents that is so conspicuous in home-garden work.

4. The school-garden work calls the children away from home and often furnishes an excuse for them to get to undesirable places of amusement.

5. Under this system it is harder to protect the gardens from marauders.

6. The plan is more expensive, especially where the cost of tools, fencing, soil preparation, fertilization, etc., is borne by the school.

7. With this plan it is harder to administer the work during summer vacation.

8. With school gardens the children are usually limited to stated intervals for the performance of their garden work. With home gardens they may work at any time.

9. The plan does not permit of the freedom of action afforded by the home garden, and therefore makes it more difficult to maintain interest.

10. With gardens that are not controlled by the home there is no incentive for the child to invest his earnings in permanent improvements and wait for returns. City people are too much inclined to demand immediate returns and should be taught that long-time investments are usually more profitable.

11. School-gardening practice does not contribute so effectively to the improvement of home surroundings as that of home gardening.

It should not be understood that this is an attempt to discredit the earnest efforts of those engaged in strictly school-garden work. To them, as pioneers, much credit is due. The school garden has created sentiment in favor of the whole movement, and most people, even those who are promoting school gardens, are now encouraging children to make home gardens in response to their school instruction. The school garden has done much for the child, but the home garden may be made to contribute all that the school garden can contribute and more.

The home garden.—This term in its strictest sense embraces those gardens that are maintained by children at their own homes. More lately it has come to include all independently operated garden enterprises, whether on the home lot or on some vacant tracts of land in the neighborhood. It differs from the school garden mainly in that it is located on land over which the school has no control, and in that the school contributes nothing to its support. The home garden

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may be, and usually is, of greater dimensions than the individual plat in the school garden. In discussing the advantages of the two systems it is necessary to keep these differences in mind.

The school-directed home garden is just as much a school garden as the one located on school grounds, but, for fear of confusion, it is usually designated as the "home garden" or the "school-home garden." Even though the gardens are located on the school property, it would seem advisable to regard them as home gardens, and to restrict their assignments to children who do not have sufficient land at home.

There are many places where, because of the absence of back yards, home gardening is out of the question, but most cities generally have better opportunities in this direction than are believed to be the case. Towns would do well to make a survey to ascertain their resources in gardening possibilities. Such a survey of the individual homes in any particular neighborhood may be made with little effort and at low expense.[1] A back yard 10 feet by 25 feet, containing a fair grade of garden soil, may produce, under favorable conditions, $20 worth of vegetables and small fruits. Eight cents per square foot is used as a basis in making this estimate. Many schoolboys have exceeded this figure, so that in making surveys it is usually safe to estimate the possibilities on this basis. It should be remembered, however, that such returns are not possible unless provision is made for adequate instruction and supervision.

By utilizing for this purpose the home back yards and the near-by vacant lots, a larger number of children may be accommodated and each child may be given a larger plat than is usually available in a school garden. The home plat is more easily protected from marauders and is more likely to be properly cared for during the entire season.

Where children perform garden work at home, the parents are made to feel that they have a part in the instruction of the children, and they actually can assist them in various ways. Some instructors have insisted that the parents refrain from helping their children, but this is a mistake, for they lose in this way an unusual opportunity to develop a hearty spirit of companionship and cooperation between parent and child. Too many children fail to realize their responsibility to the family as a whole, and it is a significant thing, therefore, to see a whole family working joyously together for their common good.

Many parents can not understand why there should be a garden at the school when there is abundant land at home and in the immediate neighborhood that should be utilized. Fathers and mothers

[1] The Bureau of Education, under certain restrictions, will supply forms for the purpose of making surveys of gardening possibilities.

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of foreign birth, probably because they appreciate the companionship of their children, seem to resent the idea of having a garden away from home. An Illinois city superintendent has called attention to this fact. He says:

> We have done nothing in the way of actual school gardening as such. Our children, however, have been instructed by the teachers in the simple elements of agriculture and gardening. It has been done at home, and for the reason that the parents, especially those that have come recently from Europe, can not quite appreciate our point of view in having a school garden. They are glad for the interest we take in having the gardening done at the homes of the children. They get more benefit and it helps to improve the environment of the homes.

Cooperative gardens.—Sometimes gardens are operated on a self-supporting cooperative basis. A sum of money sufficient to pay for the rent of land, cost of fertilizers and other supplies, and the necessary teamwork, is borrowed from one or more interested citizens. A group of boys enter into a cooperative agreement, and each assumes the responsibility for the return of his share of the money, with interest. At the end of the season the interest is paid and the principal is retained as a permanent fund for promoting the work each year.

This plan is based on home-garden principles, for it is financed independently of the school. It permits a change of personnel each year. The land is divided up into as many units as there are candidates for the work. The boys work their land independently, but cooperate in the financing of the enterprise, in the preparation of the land, in the buying of supplies, and in the selling of the crops. This is the best kind of garden work for older boys, and especially for those of high-school age.

INSTRUCTION AND SUPERVISION.

Experience has shown that it is not enough to encourage children to make gardens or to depend upon voluntary supervision of the work. It is not enough to pass around some seeds or plants and tell the children to plant them, or even to tell them how to plant them. Such a practice probably is worth while, and undoubtedly has made it possible for children to get a great deal of pleasure and wholesome exercise that otherwise would not have been provided. The children who have profited most from such meager efforts on the part of the school or other local organization are those who have had the benefit of parental instruction.

Children need experience in gardening, but, to get the most from the opportunity, they should be permitted to undertake and to carry to a satisfactory conclusion a well-rounded business enterprise. To insure a satisfactory conclusion, adequate instruction and supervision must be provided. Instruction should be given in the most

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approved methods of gardening, the methods of financing a business enterprise, the methods of marketing and distributing the products, and the proper use of the proceeds of such an enterprise.

Some people have doubted the advisability of emphasizing the economic side of gardening. They have said that, by encouraging a serious business enterprise, there is danger of commercializing the children's efforts. This kind of criticism usually comes from those who never have had to consider seriously the necessity for earning a living, which, for most people, is a vital problem. To give boys and girls experience and training that may be used as an immediate means to a livelihood is not the primary object of gardening in school. It is a very valuable corollary, however, in the turning out of strong-bodied, self-reliant, and useful citizens. Experience has shown that the educational and social benefits following the work are in exact proportion to the financial success of the individual enterprise. In like manner, the gardening efforts of any school are best measured by the dollars-and-cents method.

The teacher of gardening.—It is plain, from what has been said, that teachers trained and skilled in gardening should be provided. For this work, like other new lines of endeavor, the securing of qualified teachers constitutes an important part of the program. The movement will flourish as teachers become available, and this promises a comparatively slow development.

In the selection of teachers for this work it is of first importance that the teachers have the proper attitude toward the work and that they have broad views regarding the possibilities. Many teachers fail to grasp the full meaning of the work and are too easily satisfied with results. A teacher who knows very little about gardening but who knows children, and has the proper point of view, is more likely to make a success of the undertaking than one with elaborate garden training but with narrow or distorted views of the possibilities. The problem of obtaining teachers should be greatly simplified when the children who have had good school experience in the work finally become teachers.

The number of children for each teacher.—The number of children that a teacher can instruct properly is dependent upon the experience and administrative ability of the teacher, the previous training of the children, the accessibility of the individual gardens, and the peculiar local conditions. One of the most serious mistakes made in past efforts has been the assignment of too many children to an individual teacher. Under such conditions the teacher must spend too much time in the office writing instructions when he is needed in the gardens.

Undoubtedly one teacher, even under the most favorable conditions, can not direct effectively the work of more than 200 chil-

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dren. In the first year's effort, when few, if any, of the children have had garden experience, 100 children should be the maximum number. In subsequent years, when some of the experienced children will not only require less attention but will be able to assist in the work, a good teacher may handle as many as 200 gardens.

Teacher engaged for 12 months.—Ideally, the gardening instructor should be an extra or special teacher, devoting his time during the winter to giving instruction in gardening, agriculture, elementary science, nature study, or the like; and during the summer, to the direction of the practical garden work. He should be engaged on a 12-month basis, with provision, if desired, for a short vacation during the winter. A good many conscientious efforts at gardening work have failed from want of supervision during summer vacation.

Some schools engage a special garden teacher only for a few months during the summer. This practice gives fairly good results, but falls far short of giving complete satisfaction. Commercial gardening is very much of an all-year occupation, and the teachers who are getting best results are those who are "on the job" 12 months of the year.

Making use of the regular grade teacher.—Until public sentiment demands a special garden instructor and until funds are made available for the purpose, many schools must carry on the work largely through the efforts of their present staff. While there are many examples of success from such a plan, it must be regarded very much as a substitute or temporary arrangement. Where this plan has worked with any degree of satisfaction, there has been one teacher designated as the director of the work. She has been selected, in the first place, on account of her special fitness for the position. Sometimes she has only a meager knowledge of garden operations. She succeeds, usually, in proportion to her knowledge of the subject and experience in the work. In most cases, such teachers are not familiar with the possibilities of intensive gardening and are too easily satisfied with results.

In the early spring the chosen teacher works in cooperation with the other teachers, and, as the planting season approaches, she devotes her afternoons and Saturdays to personal instruction and direction of the work in the gardens. During the summer vacation she gives her whole attention to the work in the individual gardens. After school opens in the fall she continues to direct the work during out-of-school hours.

Such a teacher is usually paid from two to three hundred dollars per year more than the regular teachers. She should be engaged at this salary on a 12-month basis, so that she will understand that the additional remuneration is not only for the extra service

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during the summer months but that of every month of the year. If she conducts the work as it should be conducted, she must be on duty about double the time required of the regular teachers. It is a strenuous undertaking for grade teachers, and, but for the wholesome out-of-door employment, few of them would be able to bear the strain.

The Pittsburgh plan.—This plan has been put into operation in a few cities and is worthy of comment here. It is especially adapted to large cities like Pittsburgh, where it has been worked out to the best advantage. It consists of the employment of a practical man as director, and with his aid teachers of desirable qualifications are selected in their respective schools to serve as garden teachers. They have their vacation commencing the 1st of February, or the beginning of the second semester. Substitute teachers take charge of their rooms until the close of the school year. When the regular teachers have returned from their vacation their whole time is devoted to the promotion of garden work in their respective schools.

In order to make it worth while for teachers to prepare for this work the maximum salary for garden teachers is $250 higher than that of the regular teachers. This additional salary, however, is given in the form of $50 increases for five years. With five years' experience in the work under the direction of the general supervisor, and in consideration of the extra service demanded, they are worth more as teachers.

The supporters of the plan claim that it works well. They call attention to an incidental advantage of the plan in the opportunity afforded for breaking in new teachers. The substitute teachers are obtained at low expense, and as a rule take care of the vacancies in the teaching staff.

The chief weakness of the plan, as it usually works out, is that the teachers do not return from their vacation until April 1, and in most sections of the country this is too late to make the necessary preliminary preparations for the summer's campaign. The use of hotbeds and cold frames in the production of early crops is an important feature of successful garden work. With this one objectionable feature eliminated, the plan offers remarkable possibilities.

Training teachers.—The teacher of gardening should be one who has had practical experience in gardening and who knows the possibilities. He should, of course, be in sympathy with the work from its broadest aspect. He should have had a general training in elementary science, and some technical training in plant physiology, in soils and soil management, and in the growing of vegetables, fruits, and flowers. Some knowledge, also, of the fundamentals of landscape treatment, as applied to home adornment, and the materials used in

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the work, would be very desirable. He should also be trained in the administration of school home gardening.

It will be several years before many teachers with such qualifications will be available. When there is a more conspicuous demand for trained teachers for gardening, it may be expected that the normal schools and colleges will plan their courses to meet the requirements. In the meantime, cities would do well to make provision for the training of their own teachers. Unless the teacher-training schools adopt a system of training involving actual participation in the work of gardening and in the actual direction of garden work with children, they will not meet the requirements.[1]

How cities may train their own teachers.—Any city with three or more schools should find it desirable to provide for the training of its own teachers for garden work. A competent gardening instructor may be engaged to train teachers while in active service. This instructor should select a few of the best qualified teachers on the present staff and instruct them in the practical operations of gardening and in the methods of directing garden work with the children. He should not attempt during the first year to train more than two or three teachers, and the work should be restricted to certain schools. The next year he may select one or two additional teachers, and so on, till enough have been trained to carry on the work throughout the city. Two or more teachers, if necessary, may be trained for each of the larger schools. His work thereafter should consist in preparing teachers to fill vacancies and in instructing and directing all the teachers of the gardening staff.

Such a plan may safely be followed by many cities, though care should be taken not to abuse it. The chief danger lies in the temptation to undertake too much. Some superintendents may feel that they should start the work immediately in every school. Such an effort in a large city surely would fail. Some cities have already demonstrated the uselessness of trying to do effective gardening by thinly spreading out the efforts of one man.

What grades shall receive instruction.—With the present limited facilities of most cities, it is best, probably, to start gardening with the pupils of the fifth grade. A number of the more advanced children of the fourth grade also may be able to carry on independent garden projects. Gardening for the lower grades, and also for the kindergarten, is certainly worth while, but, with these, the methods and purposes of the work are different. By starting with the fifth grade most children, sooner or later, will have an opportunity for instruction.

[1] School Home-garden Circular No. 2, of the Bureau of Education, suggests an outline on the project plan for the use of teacher-training schools.

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When facilities do not permit adequate instruction of all children of the garden age, rather than to give insufficient instruction to many it is better to limit the work to certain grades. In some schools the work has been restricted to the two upper grades, but this practice is likely to eliminate some children who quit school early. It has been shown also that habits of industry are more easily acquired at the fifth-grade age, and, furthermore, the interest of children is more easily obtained and preserved when the work is started in the lower grades. It would seem desirable, therefore, to eliminate the eighth rather than the fifth grade. In actual practice, the children who have had instruction from the fifth grade up through the seventh will demand very little personal direction, and oftentimes may render efficient service in directing the work of the younger children.

It may be seen that the maximum results should not be expected the first, second, or even the third year of the gardening effort. It should be kept in mind that this is a progressive process. After children have received instruction and direction for three or four consecutive years they become fairly proficient in the art of gardening, and the varied results of the work are proportionately more pronounced.

The school-unit plan.—In an eight-room school, a familiar unit, there are usually not more than about 300 children. Since not more than half of these children will be of the garden age, such a school should supply about the right number for one teacher to instruct successfully in garden work. The larger school, therefore, shall require more than one garden teacher.

It is of utmost importance that the school-unit plan of organizing the work be followed. Assuming that a teacher should be supplied for each group of one or two hundred children of the garden age, the sooner such a plan of organization is started the sooner will it be perfected. If only sufficient funds are available for the employment of one or two teachers, they should be provided for certain schools, giving them the direction of no more work than they can carry through on a profitable and satisfactory basis. Unless teachers are restricted in their field of operation and are given an opportunity for doing the work well under normal conditions, the people will never have an opportunity for seeing the work conducted along proper lines, and consequently are likely to be satisfied with mediocre results.

Many cities have started their organization in the wrong way and then find it difficult to get anything better. They engage one general supervisor to cover the whole school system. They discover later that it is too much of a job for one man, so instead of restricting his field they give him an assistant. But they find that it is too much of a job for two men and that they are not much

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TOWN CHILDREN WHO HAVE BEEN BROUGHT TO THE COUNTRY TO FIND ROOM FOR GARDENING, FERGUS FALLS, MINN.

ONE-FOURTH OF AN ACRE AT WALTHAM, MASS., CULTIVATED BY A SCHOOLBOY.

Note the long straight rows.

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better off than they were before. In other words, they have started their organization at the wrong end. Even now they would do well to limit the field of the supervisor to a few schools, as previously suggested, and in this way give him an opportunity to train a few teachers for efficient service.

It is proper and very desirable for a city to engage a supervisor of gardening, but it should either provide some teachers for him to supervise or require him to train some for the purpose. The experience of a southern city will show the importance of restricted effort. A few years ago it employed a man as gardening director in one of its schools. He made such a phenomenal success the first year that the people requested that gardening instruction be provided for the other schools. The school board, instead of procuring a similar teacher for each of the other schools, requested their man to spread his efforts over the whole city. As a result, the work spread rapidly, but soon became indefinite and then failed.

FINANCING THE WORK.

Schools should provide funds.—After the adoption of a plan, the next problem is to procure the necessary funds for the promotion of the work. In many cases, especially where the school population has been rapidly increasing, this is a serious problem. Unlike many other subjects that recently have claimed recognition by the schools, gardening is remarkably inexpensive, and if properly directed it should contribute to the wealth of the community. In some cases it has been shown that for every $1 invested in the employment of a gardening instructor $20 worth of vegetables have been produced by the children. In this connection it should be remembered that much of the land that would be used for the purpose is waste land, and this, coupled with the unused labor of the children, means a clear gain to the community.

As previously intimated, there should be no attempt made to start the work throughout the whole school system. By starting it in one school at a time and doing the work well, it is more likely to be called for by the other schools, and in this way hasten the complete organization of the work. The experience of an eastern city superintendent may serve to illustrate this point. He was one of the first to realize the importance of gardening in the schools, and 12 years ago he asked his board for an appropriation of $12,000 for the purpose of employing a teacher of gardening in each of his elementary schools. He renewed his request every year since that time, but no money yet has been made available. If, at first, he had asked for $300 to start the work in one school, he probably would have had the whole system organized on an efficient basis by this

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time. It is usually necessary to demonstrate the value of new lines before large appropriations can be obtained.

For a system of home gardens there should be very little, if any, expense except for the salary of the instructor. Where school gardens are maintained, additional appropriations usually are necessary for tools, fencing, fertilizers, and preparation of land. Where one of the regular grade teachers is to be given charge of the garden work, the expense should not exceed three or four hundred dollars, this being the amount necessary to remunerate the teacher for her extra service. Where a special teacher is demanded, the expense would be about $1,500, for such a position calls for a special training as well as additional service. Where it is the intention to engage an experienced man to train teachers, the expense would be still greater in the beginning. Eventually, however, this plan should prove to be the most economical, especially for the larger cities. In this case, the expense would be from $1,500 to $3,000 per year for the instructor, and from $100 to $300 for each teacher selected.

When the proposition has been presented properly to school boards, they are usually quick to see the importance of providing for the work. Being unfamiliar with the requirements, and in their efforts to disburse their funds economically, they are likely to, and often do, place hampering restrictions on their appropriations. In many cases only sufficient money has been made available to arouse considerable enthusiasm among the children. Such efforts usually have a detrimental effect upon subsequent and serious attempts at gardening. Children who have been persuaded to plant seeds with the hope of getting large returns often have been disappointed, so that efforts to interest them again have failed.

Cooperation with local organizations.—Where funds have not been provided by the school boards, it often has been possible to interest some local organization to the extent of contributing enough money to engage a teacher for one school and to make a demonstration of the possibilities. Such a demonstration, if carefully conducted, should convince the school board and the general public that the work is worth while.

Chambers of commerce and boards of trade should be, and usually are, interested in a proposition that means so much educationally, socially, and economically. It is easy for business men to see how such an undertaking should affect the prosperity of the community. Since many children under competent direction have been able to produce over $100 each from their garden enterprises, it is safe to say that the children in and above the fifth grade should produce an average of $25 worth of vegetables, small fruits, and flowers. Knowing the number of children, and knowing that there is abundant land avail-

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able, it is easy to estimate what gardening in the schools means economically, to any community.

Whatever the source of the funds, the work should be centered at the school, and the superintendent, of course, should be the administrative head. Local organizations who wish to assist in the promotion of gardening should be shown the necessity for centralizing the work. Any funds contributed should be turned over to the board of education without hampering restrictions. If a local organization wishes to make a normal and effective demonstration of the work and is prepared to employ a teacher for the purpose, it should turn the teacher over to the school for direction.

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III. HOW GARDENING MAY BE PROMOTED BY THE SCHOOLS.

To present a suggestive program for the use of those in immediate charge of gardening is the purpose of the following discussion. Only an outline is presented, and no attempt is made to give instruction on the various cultural questions relating to the subject. The recommendations are intended for schools employing the home-garden method, in its broadest sense. This includes gardening on the school grounds, where it forms a part of the home-garden system and where the individual plats are regarded as home gardens or independent projects. A strictly school-garden program may need some modification, especially with regard to preparing the land and marketing the produce, but even in these matters the recommendations are quite similar. The program is planned, also, for schools where a teacher is given charge of a limited number of children, ranging from 100 to 200.

PRELIMINARY SURVEY.

It is very desirable, especially in the initial stages of the work, to make a survey of the district to show the opportunities for gardening. Such a preliminary survey should prove useful in emphasizing the need for gardening, and, coupled with a subsequent survey showing the results, in justifying the extension of the work to other parts of the city. This survey should show especially the amount of land available for gardening, the character of the soil, the amount of land used for gardening, the approximate value of the products raised, and an estimated value of the products that might be grown. It does not require an extensive knowledge of gardening to make such a survey, but it should be made by means of a house-to-house canvass, rather than by sending the blank forms home with the children.

It is very desirable that the survey be made by the teacher who shall have charge of the work. This should serve as an introduction to the homes and furnish an opportunity to get acquainted with the parents. It should be a good time, also, to arrange for the cooperation of the parents, to settle upon the amount of land to be set apart for the children, and to make definite arrangements for financing the garden project. The teacher at this time should explain to the parents that, while there is no objection to their assisting the children with the heavier work, there is great danger in

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doing too much for them. The parents should be given to understand that the responsibility for the project must rest with the child.

Charting the district.—While making the preliminary survey it is well to use a map on which to indicate the location of available land for gardening, both in back yards and in vacant lots. Real estate dealers often have maps that are suited admirably to the purpose, but these are somewhat expensive. If these are not available, the making of such maps is not a difficult task. If no other mark is employed, the letter "V" may be used to distinguish the vacant lots from those that are occupied. For convenience, each lot should be given a number, and in this way children's gardens may be located more readily. The regular street numbers may be used, but it is difficult in some cases to obtain the correct numbers of vacant lots.

The district map may be mounted on sheet cork or corrugated paper so that tacks with different colored heads may be used to indicate the gardens of the various grades. Two such maps may be used advantageously to show progress in the utilization of waste land. On one of these maps the land under cultivation at the time the preliminary survey was made may be indicated by color, and on the other the reclaimed areas may be added from year to year.

PROCURING LAND.

The matter of procuring land is one that should be given attention long before the opening of the gardening season. If it is not attended to before the arrival of the rush season, the work is not likely to get the attention it deserves, or something else will be neglected. With the home-garden plan the problem of securing land usually is a simple one, but in densely populated cities it is often a very difficult matter. A preliminary survey usually reveals more land than is believed to be available. The scarcer the land, the more intensive should be the methods of gardening. The magnitude of the garden enterprise is not necessarily in proportion to the size of the garden but is measured by the returns.

Size of gardens.—In the past the garden projects of children have not been sufficiently large to maintain interest without the offering of prizes or other strong inducements. In most cases the gardens have been too small, and, from the lack of adequate instruction, not sufficient produce has been raised from the land in use. In determining the size of gardens for the use of children much depends upon whether they are to be located on the home grounds, where some assistance may be obtained, and upon whether adequate instruction is to be supplied. The age, size, ability, and experience of the child; the character of the soil; and the availability of land are also factors to be considered in determining the size of

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the individual garden plat. This is a question that must be determined by the teacher. The important point is that no attempt should be made to set apart any definite amount of land for each child, according to grade. As a rule, fifth-grade children, without former experience, can handle gardens containing from 200 to 300 square feet. Those who have had some experience and those who are unusually strong should carry on larger projects than this. The higher-grade children usually may be depended upon to operate successfully proportionately larger areas. The eighth-grade boys, and many of the girls also, after having the instruction and experience during the three previous years, should manage gardens containing from 1,000 to 2,000 square feet, or even more.

There is danger, of course, in assigning too much land to untried children, but boys and girls lose interest more often from having too little land rather than too much. To hold the interest of the children in small towns and semirural sections where gardening is not a novelty, it is necessary to assign larger and more intensive projects than for the children of large cities.

Back yards.—The home back yards should first be used, and it will be necessary for the teacher to make individual visits to the homes of children to insure a proper understanding regarding the use of the land by the children. In small back yards, and where there are two or more children of the garden age, or where the parents insist on retaining part of the land, it may be necessary to obtain additional land in the neighborhood. Neighboring gardens connected with homes where there are no children often may be obtained by paying a small rental or by contributing a certain supply of vegetables in return for the use of the land.

Vacant lots.—When more children become interested and more proficient in gardening, most of the vacant lots in towns and cities will be used for children's gardens. It is sometimes difficult to obtain the use of vacant land for this purpose, but when real estate men come to realize what an improvement in appearance can be effected by gardening, they will be more anxious to make their property available for the purpose. Children should be encouraged to make their own arrangements in their respective neighborhoods and to assume the responsibility. In many cases the instructor's assistance will be needed. In some places the school makes a contract in which it agrees to pay a nominal sum for the use of the land and, before giving it up, to level it and seed it down to grass. In such cases the school should divide up the cost for rent among the children using the land. The amount charged by real estate dealers usually is very small. In general, only $1 per year, or enough to make a legal contract, is charged. In this way full use of the land is assured until the end of the season. A moral promise usually is sufficient for this purpose,

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especially where the real estate dealers are interested in the work of the school.

Objections of landowners.—In some cities much difficulty has been experienced in obtaining the use of vacant lots for gardening purposes. This is not surprising, for real estate dealers do not want to enter into an agreement that is likely to interfere with the sale of property. The presence of a thrifty-looking garden may attract attention to the vacant land and, in some cases, contribute to its sale. At the same time, the presence of children's gardens might interfere with the sale. The prospective buyer may want to build immediately, but, on account of a deep interest in the welfare of the children, he may dislike to break up the garden enterprise and consequently select another site. Real estate men are quick to see the possibility of losing a sale in this way. The existence on a contract agreement for the use of the land makes little difference from the standpoint of the dealer. It may be argued that the children's gardening interest may be purchased, in case of necessity, any time during the season, but the conscientious buyer may still object to interfering with the children's enterprises.

The real estate dealer, therefore, has good reasons for withholding permission to the use of the land in his charge. In some places all real estate men have agreed among themselves to defer the transference of titles until the close of the garden season, or, in case of urgent necessity, to reimburse the children for their efforts. As a rule, only a very small proportion of the vacant lots are built upon during the growing season, and in many places real estate men are very anxious that their property be used for this purpose. They believe that the disadvantages of the plan are more than offset by the advantages.

Where difficulty is experienced in getting the consent of real estate agents for the use of lots that are owned by other people, a letter of explanation to the owner usually will bring results. Where the agent refuses to divulge the owner's name the registrar of deeds or the assessor may be appealed to for the information.

This unused land about town often is in bad condition for gardening. Sometimes it is covered with bricks, stones, and other rough material. In many cases it is possible for the children to clean up these lots unaided, but frequently help will be needed. The health, street-cleaning, or park departments may render service in this connection.

Suburban tracts.—In congested areas of large cities it is often impossible to secure for the children sufficient land within walking distance. In such cases the schools should provide for the transportation of the children to suburban sections where large tracts of land may be obtained. Traction companies may sometimes be induced

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to run special cars at stated times at reasonable rates. Auto trucks, if not too costly, may be used for the purpose of transporting the children. Where there are large numbers unable to get gardens near by, it may be desirable to limit the garden work to certain grades.

Fencing.—On vacant tracts of land there is sometimes need for fencing. This need is especially urgent during the early stages of vacant-lot gardening. Where most families are engaged in gardening, there is no serious trouble from marauding. In some cities the police department assumes the responsibility of guarding the children's gardens, and they should be expected to do so in all cities. Where the gardens are in poorly illuminated sections, additional lights have been provided, which makes marauding at night more difficult. In other cities temporary or movable fences have been supplied by one or another of the city departments. When gardening is put on a money-earning basis, it is doubtful whether the expenditure of public funds for fencing is justifiable. From the standpoint of the child, it would be much better if the enterprise should be made to maintain itself, and, for this reason, the fences should be loaned rather than donated. Such fences may be considered the property of the department of public safety and be used to aid the police in protecting the gardens.

Eventually, however, there should be no need for fencing. If the children should suffer some loss from stealing, it may be considered part of the moral training incident to gardening.

SELECTION OF CROPS.

The selection of crops, also, is a subject that should be studied and solved in advance of the gardening season. To discuss the principles governing the selection of crops is the purpose here, rather than to consider the adaptability of the individual crops. With children of the grades below the fourth, and possibly including the fourth, it makes little difference what crops are employed, but possibly the more easily grown flowers are best suited. With the fifth grade, definite home-project work commences, and for this purpose vegetables are most suitable. In general, they are easier grown than fruit or flowers. After the children have had some experience in growing plants, they may attempt the growing of flowers on a small but commercial basis. When they have become skilled in growing both vegetables and flowers, some of them may be started on the growing of small fruits; then tree fruits; and later, ornamental trees and shrubs, including their use in home adornment. This is a progressive arrangement and tends to maintain interest. The same result may be obtained, however, by gradually increasing the size and complexity of the project relating to either vegetables, flowers, or fruits.

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Vegetables.—In past efforts the main purpose of gardening aside from the educational advantages has been the improvement of home surroundings. The trend at the present time is to commercialize the work and at the same time to increase its educational value. The educational advantages, formerly, were closely associated with moral and physical training, while now they center on the industrial and commercial training.

In the selection of crops for the purpose, therefore, the question of profitableness is one of the first considerations. In estimating the money-making value of a crop for children's gardens, the gross returns are considered rather than net returns after deducting for labor. In other words, a crop that calls for a large amount of labor is often more profitable for a child's garden than one that requires the minimum amount of labor. In the growing of celery the returns per acre are very high, but, on account of the great amount of labor demanded, market gardeners do not consider it any more profitable than many other crops. But from the standpoint of the child, this should be a profitable crop, for it supplies a large amount of remunerative labor. When the gardening enterprise reaches such proportions that the child must employ outside labor, it is time to consider the selection of crops that demand a smaller amount of labor. These are good economic questions to discuss with the young gardeners.

The adaptability of the crop to local conditions is of vital importance. Under this head should be considered character of soil, peculiarities of climate, position in garden with reference to shade and sunlight, special demands of the crop, habits of growth, the location of the garden, the age and experience of the child, the attitude of the parents, and the demands of the market.

It should not be assumed, however, that crops can not be grown profitably unless all conditions are ideal. The rule should be to select crops that are best suited to the fixed conditions and to modify alterable conditions, when possible, to meet the demands of selected crops. Soil may be modified within certain limits by methods of management. The climate and the amount of light and shade are fixed factors. High board fences, however, sometimes may be removed, or replaced with wire ones, and crops may be located in the garden according to their varying light requirements.

Some crops, like turnips, draw more heavily than others upon certain forms of plant food; and some, like beans, thrive on remarkably poor soil. Some require special kinds of treatment, like pruning, training, staking, and bleaching, and these affect the amount of labor demanded.

Whether the garden is located in the back yard or on land some distance from the home is a vital factor. This not only affects the

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amount of labor required, but the security of the crop is at stake. Some crops, like melons, are more likely to be stolen when planted where they can not be properly guarded.

The habit of growth of the plant, also, should be studied from the standpoint of crop selection. On small areas it is better to select crops like lettuce and radish, that are capable of more intensive methods, while on larger areas the vine crops, like cucumbers, melons, squashes, and pumpkins, may be admitted. Tall-growing crops, like corn, are not permissible in small plats, nor in larger ones either unless located in such a way that the other crops will not be shaded.

The age and experience of the child must receive consideration. Easily-grown, quick-maturing crops, like radishes, peas, and beans, should be selected for small, inexperienced children, while the older and experienced pupils demand the more precarious crops or those that furnish a "man's job."

The demands of the market should constitute one of the chief factors in the selection of crops. The most available market being the home, the whims and fancies of the parents and other members of the family should receive first consideration. The teacher, of course, may render service in recommending crops that best suit the family needs. Poor families, for instance, should be shown that by growing leguminous crops, like beans, and using them in the ripe condition, they may get along with less meat. Some parents, also, will need to be shown that on a small plat it is more economical to grow "money crops" for market, rather than to attempt to grow the family supply of potatoes. Where there is a poor market for vegetables, the reverse of this recommendation may be better advice.

Where there is an oversupply of the common vegetables, the teacher should suggest special crops that offer better opportunities for market. It is always advisable to recommend a diversity of crops for the children of the neighborhood and to avoid an overproduction of any one vegetable or fruit.

Then, of utmost importance, is the matter of selecting crops that will furnish a continuous supply of vegetables and steady employment for the children. Gardening in the South is an all-year-round occupation, and in the North, by means of hotbeds and cold frames, it may be made to approximate this condition. In actual practice among the schools there is a common belief that one crop from the land in a single season is all that should be expected. In some places only those crops are selected that will mature before school closes for the summer. Where such a practice is followed, the children must get an extremely vague idea of the possibilities of gardening. On the other hand, some children of the South are obtaining five or six successive crops, and many boys and girls of the North are not

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satisfied unless they can harvest at least three successive crops in a single season. The teacher who fails to emphasize successive cropping and the use of every means to extend the season is not living up to his opportunities.

Lastly, and by no means the least, is the question of selecting crops that will give a variety of experience and afford greater educational opportunities. Crops differ greatly in this respect. Some require early starting, which demands the making and operation of hotbeds and cold frames, and of transplanting once or twice. Others require either staking, pruning, or blanching, all of which bring out the inventive powers of the child. Others permit instructive enployment in that they may be profitably canned during and after the close of the gardening season.

Flowers.—With the shifting of the point of view and the broadening of the purpose of gardening has come a change in method. It has been found that in the early stages of the work there must be a stronger motive than that of improving the appearance of home surroundings, or that derived from seeing plants grow. Crops are now grown for their money value. The growing of flowers from the commercial standpoint changes neither their beauty nor fragrance, nor does it necessarily diminish the pleasure derived from their culture and association.

In the selection of flowers for children's gardens, therefore, it is advisable to keep in mind their commercial value. Their adaptability to the market should also be considered, although special markets for almost any kind of flower may be developed by industrious boys and girls. One boy has made a specialty of growing cosmos and has arranged with the people in the neighborhood to take his entire crop at the rate of 25 cents a bouquet twice or three times a week during the season. Another boy, who has a good-sized hotbed and a cold frame, has been able to develop a large business in raising pansy plants for sale. He was advised by his teacher to do this in order to lengthen the gardening season.

The adaptability of the various kinds of flowers to the purpose intended—whether for wearing or for use on the table—should be studied. As with vegetables, their adaptability to the conditions under which they are to be grown is of importance. Flowers differ as to their cultural requirements. Some require a rich soil, some a moist soil, some require an abundance of light, while others thrive well in shady places. Some demand a cool location; others thrive best in a hot, dry climate.

The growing of flowers should not be limited to girls, for many boys have become intensely interested in this work and have become better boys as a result.

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Fruits.—In the past insufficient attention has been given to the growing of various fruits. Most people are too impatient for results, and for this reason it is desirable to encourage children in the growing of crops that require two or more years before any return comes from their efforts. Boys and girls must first be shown the possibilities in the cultivation of the soil, and for this purpose vegetable crops are best suited. When they have been convinced of the possibilities and of their own ability, they should be encouraged to give some attention to fruit growing.

They should start first with the small fruits, like strawberries, raspberries, currants, and grapes; and later with the tree fruits, like plums, peaches, cherries, oranges, lemons, pears, and apples. The tree fruits require a great deal of space, but they may sometimes be arranged along the north side of the garden, or around the border of the front lawn, where they may serve a twofold purpose. Bush fruits thrive fairly well in partial shade, and they may be planted near or beneath the trees. On account of the ease with which they may be cared for, dwarf fruit trees are well adapted to back-yard use. Standard trees, however, will give larger returns for the space occupied. When grown under favorable conditions, a 4-year-old peach tree should produce enough fruit, both fresh and for canning, for the average family. A mature apple tree, if grafted to three or four varieties, should produce enough fruit for the average family in all seasons of the year. In some sections 10 barrels of apples in a single season is not an unusual yield for a full-grown apple tree. If sold at the present retail price in Washington, such a crop should bring at least $75. Such a return, of course, can not be expected every year and under all conditions. It is not difficult, however, to estimate from this what it would mean to have one apple tree in each back yard of the smaller cities, where there is usually abundant room. An apple tree, if properly cared for, may produce a good many crops, for in the Northeastern States it often lives to be 75 years of age. It does not bear, of course, every year, but some varieties are fairly reliable annual bearers. A single Rhode Island greening tree in a Connecticut back yard produced 33 barrels of choice fruit in three years.

Pear trees require little room, are long-lived, and are usually very profitable for back-yard purposes. In certain sections they are more uncertain than apples, on account of their susceptibility to disease. Plums and cherries also are very desirable for children's gardens. Peaches are more difficult to raise, but with favorable soil and climatic conditions, and some experience, good results should follow.

Grapes make a very desirable crop for back-yard culture. In the colder sections they thrive especially well on the south side of a fence

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or building. They furnish a wide range of experience, and their culture should be encouraged, especially among the older and experienced children.

Ornamentals.—Nursery practice offers excellent opportunities for schools. Many of the ornamental trees and shrubs are easily propagated, both from seed and from cuttings, and with sufficient instruction almost any of them may be propagated by children. Certain kinds of shrubs, like the barberry, are extremely easy to propagate and are especially appropriate for children's work. A class of boys, if shown how, could grow enough plants with little effort to supply the needs of the town. The third year from seed they may be sold at a good profit, and at a figure sufficiently low to come within the reach of almost anyone. This is the most effective way to start civic improvement work.

The making of hardwood cuttings and the practice of grafting and budding furnish an opportunity for admirable experience. It is quite possible, also, to put the work on a profitable commercial basis and at the same time improve home surroundings, and beautify the city in general. This is a higher type of work, however, and should be given over to the older and more proficient pupils. When children have had three or four years' training in gardening and have reached the eighth grade, they may be interested in the higher ideals. They should be given to understand that on account of their training they should be leaders in civic improvement, and that they should assume the responsibility of protecting shade trees and other public property. With proper encouragement and tactful direction, great things in the way of civic improvement should be accomplished by the older boys and girls.

It is necessary to keep ever in mind the need of a strong motive for promoting work with children. Very little progress may be expected unless there is displayed a greater incentive than the satisfaction that comes from pleasing the teacher or from seeing the city beautified. With boys, and girls too, there is a strong desire for recognition at about the age when they enter high school. This desire for recognition and also the desire to earn enough money to make a good appearance are strong motives for special effort and should be recognized by the teacher.

PLANNING THE GARDEN.

After the land has been procured and when it has been decided what crops are best suited for the individual gardens, it becomes necessary to plan the gardens so that the proper quantity of seed may be ordered and everything made ready for the approaching garden season. It is assumed that the teacher has already visited each garden and after consultation with parents and pupils has decided upon

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the area to be planted. It is necessary to know the dimensions of the plat, and, if irregular in shape, a rough sketch should be made by the teacher on his first visit. A sketch is also necessary to show certain peculiarities of the garden, such as variations in soil and light, and its relation to walks, trees, and buildings. With a rough sketch giving these peculiarities, as well as the dimensions, and with the use of a planting table (see Farmers' Bulletin No. 255, and Cornell Reading Courses, Vol. II, No. 34), which gives information regarding distances of planting, almost anyone should be able to make out a good planting plan. The garden teacher may instruct the other teachers sufficiently to enable them to help the children in their rooms to make their plans; or the garden teacher may plan each garden at the time of his visit early in the season.

In the planning of the garden it is necessary to consider subsequent or succession crops, so that sufficient seed may be ordered in one shipment. It is difficult, however, to plan the work in advance for all the individual gardens. Regardless of great care in this respect, there are bound to be some necessary changes. The important point is to plan in a general way for the whole season and to estimate as nearly as possible the amount of seed required.

The planning of the garden also embraces the question of using hotbeds and cold frames. Some crops will need to be started in these or in the windows of the school or home.

Great care should be exercised in the matter of planning for the permanent plantings, such as perennials, bush fruits, trees, and ornamentals. To do this properly, the teacher needs to understand the fundamentals of landscape design as well as to possess a knowledge of fruit and vegetable culture.

Except in the ornamental section, long straight rows should be the rule. The rows should run lengthwise of the garden, unless there is some special reason for their running crosswise. There is need for a path along one end or one side, but if land is plentiful a more attractive back yard may be made by using a walk and a border all around the garden (see fig. 1). Where there is an alleyway at the back of the lot, it is usually necessary to plan a walk from the back door to the alley gate (fig. 2). This walk may be used to separate the garden of two children.

Dividing the land.—Where land other than that in the back yards is used, it will be necessary to divide it up into plats, to accomodate more than one pupil. Occasionally, one boy may desire to use the whole of a vacant lot, and sometimes two or more pupils enter into a partnership agreement and cultivate jointly a vacant piece of land. In such partnership arrangements it is usually advisable to divide the lot so that the pupils may work independently, to insure equal distribution of effort.

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In dividing the vacant lots it is advisable to make the plats as large as seems desirable, according to the ability of the children and the amount of land available. Too much space is usually occupied for walks separating the plats. Simplicity should be the rule. To facilitate the work of cultivation, it is advisable to arrange the plats so that the rows of vegetables may be long. Where two, three, or four pupils are to be accommodated, the lot should be divided lengthwise, with a walk at each end, as shown in figure 3–A. Where five or more pupils are to be accommodated, the lot should be divided crosswise, with a walk at each side, as shown in figure 3–B. There is no necessity for walks between the plats, but the children

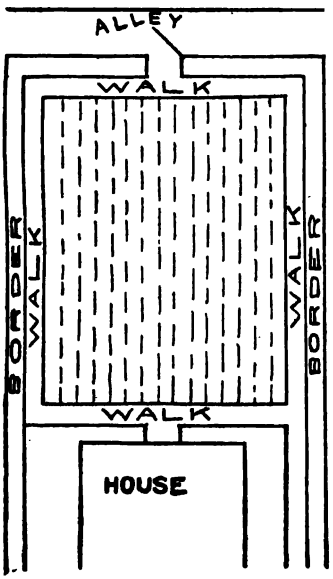

FIG. 1.—Back-yard plan showing walk and border surrounding the garden.

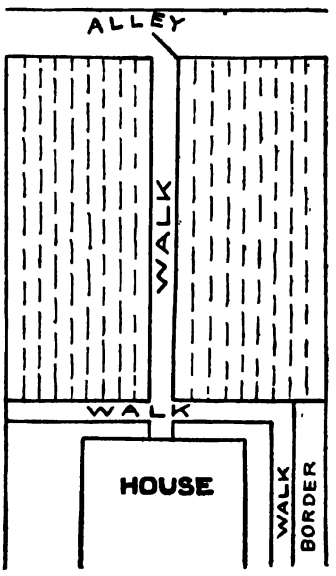

FIG. 2.—Garden plan showing walk from the back door to the alley gate.

should be given to understand that nothing should be planted within a certain distance, approximately 12 inches, from the line of separation.

In dividing larger tracts of land, also, it is advisable to arrange for elongated plats rather than broad ones. The size of the plats will depend upon the number of children to be accommodated and upon the age and experience of the children. But large plats should be provided when sufficient land is available and when the children are capable and experienced. These larger tracts are best platted by dividing the two parallel ends into spaces equal to the width of each plat and intervening spaces equal to the narrow paths, usually about 2 feet. The two parallel sides should then be divided into spaces equal to the length of the plats and intervening spaces equal to the

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wider walks at the ends of the plats. These wider walks are usually from 3 to 4 feet in width. The marks along the sides and ends of the tract should indicate the places for setting the line stakes to be used in marking off the field in a checkerboard fashion. The garden line should be drawn tight and a mark quickly made from one end to the other, using a hoe handle for the purpose. When such marks have been made in both directions, stakes may be driven in where the marks intersect. In this way a stake will indicate the four corners of each individual plat (see fig. 4).

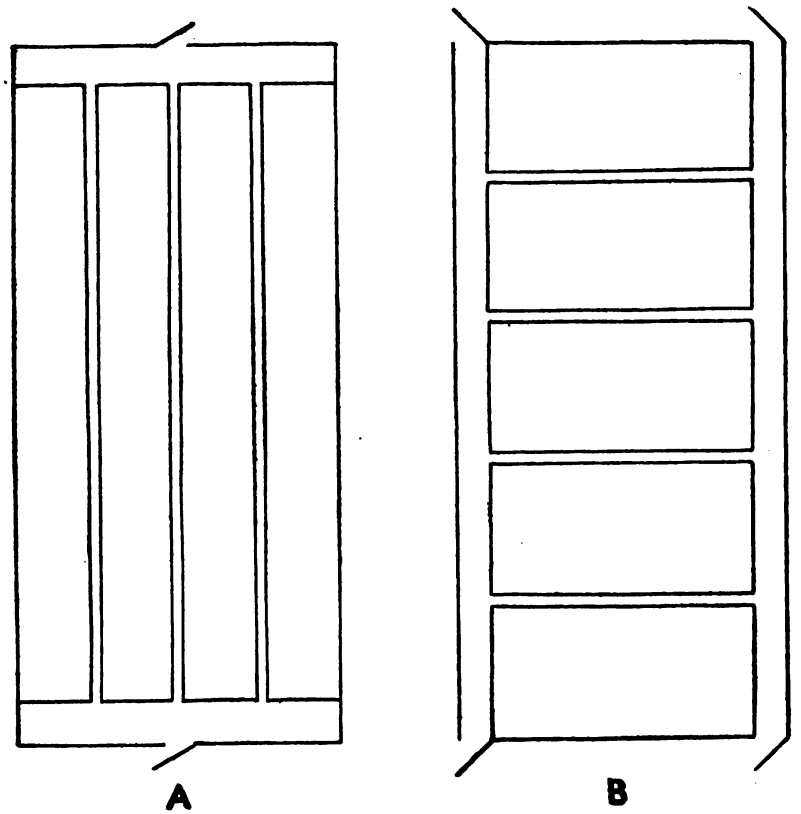

FIG. 3.—A. Dividing a lot lengthwise for two, three, or four pupils. B. Dividing a lot crosswise for five or more pupils.

THE SEED SUPPLY.

The distribution of poor seed, the late ordering, and an insufficient supply of seed have been causes of many disappointments. The teacher should send for seed catalogues about January 1, and determine soon after that how much seed will be required. Children should be encouraged to study seed catalogues. In their efforts to get information concerning the selection of crops for their gardens, they will get good experience in reading.

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Order seed in bulk.—In the past the children have obtained most of their seed in the form of penny packages. In very few cases are there enough seeds in these packages to supply the requirements. This method of purchasing seed is fairly satisfactory for the small

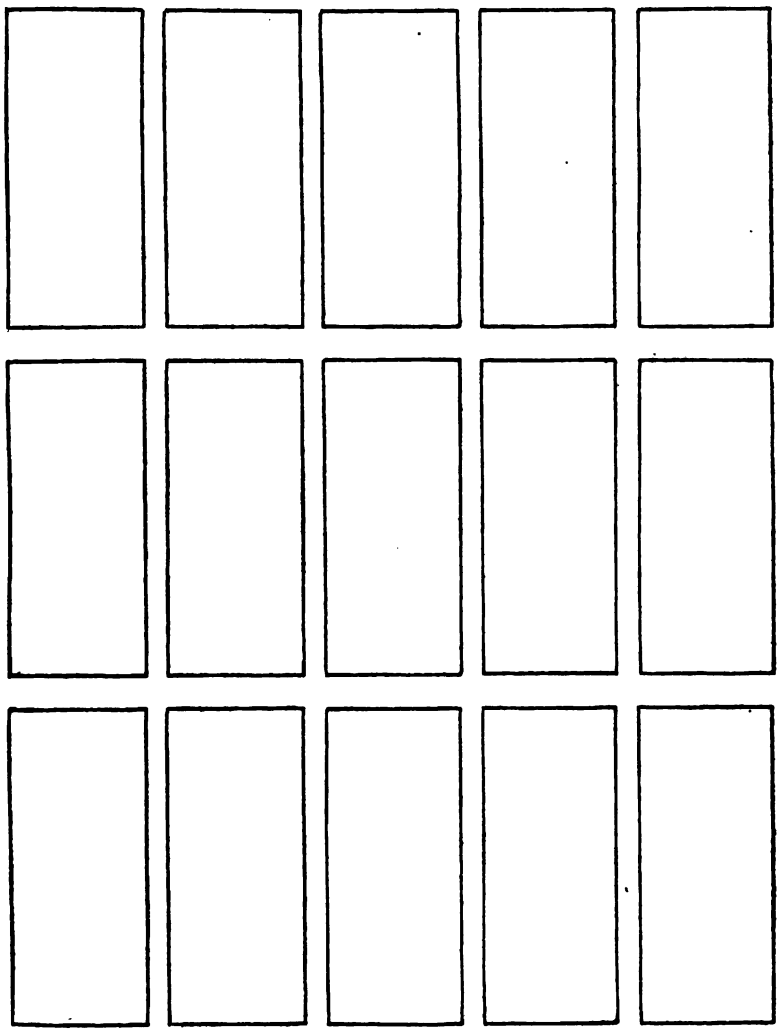

FIG. 4.—Plan for dividing larger plats of land.

plat gardens on school grounds, but for the business gardens in the home back yards and in vacant lots it is more desirable to purchase the seed supply in larger quantities. By the use of planting tables[1] it is easy to determine the amounts necessary of the various kinds of

[1] See U. S. Dept. of Agric. Farmers' Bulletin No. 255, and Cornell Reading Courses, Vol. II, No. 34 (Ithaca, N. Y.).

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vegetables and flowers. Seed catalogues also furnish much information regarding quantities of seed needed to plant a given length of row. Each child, in consultation with the instructor, determines the amount needed and hands in his or her order with the money to pay for it.

When all the individual orders of the children have been received, they should be combined and the seeds purchased in bulk. On the arrival of the shipment the seeds are put up into packages by the children, according to the individual requirements. Sometimes by ordering the seeds in bulk there will be a sufficient saving to warrant a refund to the children.

It is important to deal with a reliable seedsman, for there is a great opportunity for deception in the seed business. Seedsmen often have seed left over from previous years, and they sometimes sell this to unsuspecting buyers. Frequently they mix their left-over seed with their fresh supply, and, as a result, the sample will show a low or irregular germination test. To guard against loss from poor seed it is advisable to obtain the supply early enough to allow time for ordering a second supply after proving by testing that the sample is not satisfactory. Reliable seedsmen will exchange the order for a fresh supply if it can be shown that the sample was weak in germinating power.

Discourage the free distribution of seeds.—Many local organizations and individuals, in their zeal to promote the work, have contributed free seeds to children. Such a practice has made it possible for many children to enjoy the growing of vegetables and flowers, but when the free distribution has ceased there has been a conspicuous waning of interest. If a spirit of independence and self-reliance is to be created, the practice of giving seeds to children or of aiding them in any way in financing their gardening enterprises should be abandoned.

In many cases children may not be able to secure the money to purchase the necessary amount of seed for the promoting of a profitable enterprise. Some fund should be made available from which children may borrow the necessary amount to finance their project. Some public-spirited citizen may be willing to furnish a fund for this purpose. The amount borrowed, with interest, should be returned to the fund when the returns come in from the sale of vegetables. Herein is a good opportunity for a lesson in the use of borrowed money and in business integrity.

OUTSIDE INSTRUCTION.

Boys and girls of the country possess a knowledge of many elementary facts relating to agriculture; such as, the proper time for planting and for harvesting crops, the general appearance of agri-

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cultural plants in their various stages, the different kinds of soil, the names and uses of tools, and other things too numerous to mention. To put city children on the same basis and to give them approximately the same standing in relation to an advanced or secondary course, the city schools must provide children with an opportunity to acquire a knowledge of these elementary facts, and at the same time train them in the fundamental principles equivalent to such training in the rural schools. It would seem that the city schools, in this respect, were at a disadvantage compared with the rural schools. Inasmuch as the rural children acquired this elementary knowledge at home and during out-of-school hours, it behooves the city schools to see that town boys and girls are provided with a similar opportunity for home training. If the homes do not provide the opportunity, as the rural homes do, it is the duty of the city schools to show parents the necessity for it, and how it may be supplied. There are many phases of agricultural practice, especially those relating to animal husbandry, that are not easily conducted in towns and cities, but these disadvantages are offset by many advantages. The city furnishes a much better opportunity for children to acquire experience in the business and economic aspects of farming. They may come in direct contact with the consumer, with the markets, with the commission houses, with the retail stores, and with the banks. They can see for themselves how the raw materials are used in manufacturing and how the agricultural industry is interwoven with all other interests.

There is a liberal opportunity for teachers to display originality in the matter of furnishing instruction during out-of-school hours. No attempt should be made to follow common classroom methods, for such are sure to put a damper upon the spontaneous efforts of children. The boys and girls should not be led to believe that the instructor is the source of all gardening knowledge. While it is a hopeful sign when children ask questions and while they should be encouraged in the practice, the teacher should not attempt nor be expected to answer directly all such questions. He should be able to satisfy and intensify the children's curiosity by suggesting how they may get the desired information directly from either the soil or the plant.

Boys and girls, despite careful direction, are sure to make some mistakes, but these constitute a very important part of their training. Teachers would do well in this connection to follow the advice given in "Jock of the Bushveld:"[1]

> Boys is like pups—you got ter help 'em some; but not too much, an' not too soon. They got ter larn themselves. I reckon ef a man's never made a mistake he's never had a good lesson. Ef you don't pay for a thing you don't know what it's worth; and

[1] Jock of the Bushveld, by Percy Fitzpatrick, 1907, p. 38.

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mistakes is part o' the price o' knowledge—the other part is work. But mistakes is the part you don't like payin'; that's why you remember it. You save a boy from makin' mistakes, and ef he's got good stuff in him most like you spoil it. He don't know anything properly, 'cause he don't think; and he don't think 'cause you saved him the trouble, an' he never learned how! He don't know the meanin' o' consequences and risks 'cause you kep' 'em off him! An bymbye he gets ter believe it's born in him to go right, an' knows everything, an' can't go wrong; an' ef things don't pan out in the end he reckons it's jus' bad luck! No, sirree! Ef he's got ter swim you let him know right there that the water's deep an' thar ain't no one to hol' him up, an' ef he don't wade in an' larn, it's goin' ter be his funeral!

The school laboratory.—It is very desirable to have a small plat of ground at or near the school that may be used as a garden practice ground or school laboratory. As previously pointed out, this plat should be used to demonstrate methods rather than to illustrate a model garden. If used as a standard it may do more harm than good, for, owing to adverse conditions or to some mishaps, the standard may prove to be too low. Even though the model garden should turn out well and should be perfect in every detail, it fails to make the desired impression upon the pupils, because it has been produced under abnormal conditions, and children are not expected to compete with the school. But a real inspiration comes to a child when the superior achievements of other children are pointed out. These are the real demonstrations.

The school practice ground, however, should afford an excellent opportunity for the children to get practice in the use of tools and in the various operations connected with gardening. Here is the place to teach children how to spade, to rake, to hoe, to plant, to transplant, to make a mulch, to irrigate, to make a hot bed, to make a compost, to prune, to train, to stake, to bleach, to prepare crops for market, and the like.

An inside laboratory also is very useful, especially for rainy-day work. Such a laboratory often may be provided in the basement. The pupils themselves, with the guidance of the instructor, may erect a shelter in some inconspicuous place to serve as a laboratory. In this rainy-day laboratory a great variety of exercises may be performed. Simple experiments may be conducted to demonstrate principles of soil management, to show the movement of water in soils, the water-holding capacity of various types of soils, the function of the soil mulch, etc. Practice also in making cuttings, in grafting, in budding, in making germination tests, and the like, may be afforded. Demonstration work in canning for home use and for market also may be done in such a laboratory.

The school equipment for gardening.—As previously intimated, with the home project work in gardening there is little need for any elaborate equipment, because children procure their own outfits. Many schools are doing effective work without equipment; and many others

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with a complete supply of tools and appliances are not living up to their opportunities. More depends upon the ability and resourcefulness of the teacher than upon the amount and quality of the equipment.

There are some things, however, that may be regarded as very desirable, although not necessary, for the schools to possess. In addition to the shelter for rainy-day work there may be provided a simple spraying outfit, costing about $5; one or two wheelbarrows, at $4 each; two or three wheel hoes, at $3 each; one canning outfit, at about $8; three spading-forks, three rakes, and three hoes, at about 75 cents each; three hand weeders and three trowels, at about 25 cents each; and a garden line, at about 50 cents. The smaller tools are needed only when demonstration work is done at the school. The larger and more expensive tools are desirable to lend to the children. If desired, a small charge may be made for their use and thus a fund created to buy new equipment.

There may be a need for some apparatus for inside laboratory work, but most of this should consist of simple home utensils that may be temporarily supplied by the pupils. Osterhout[1] has shown how numerous experiments with plants may be conducted by using simple and homely apparatus.

It is sometimes desirable, also, for the school to maintain a hotbed and a cold frame. These are useful for demonstration purposes, and the plants grown in the process may be sold at small cost to the children. This school outfit, however, should not take the place of the home outfits of the older pupils, nor should the sale of the plants by the school interfere with the legitimate business of children in growing plants for sale.

Back-yard instruction.—In most cases a large proportion of the instruction should be provided at the homes of the pupils. Conditions under which the children work vary so greatly that each home garden may offer a different set of conditions and, even though excellent opportunities are afforded for school instruction in gardening, much attention should be given to the problems of individual children.

The garden season usually opens with a rush and since an early start is usually one of the chief factors for success, this will be the busiest time for the instructor. Where there is no practice plat at school he will need to work with small local groups of children. He should arrange with certain homes for a series of demonstrations. On one afternoon he should have it announced in school that in a certain back yard there is to be a demonstration in spading, raking, and planting. All the children who are to make gardens and who

[1] Osterhout, Experiments with Plants, 1905.

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live within a designated radius of the selected place should be requested to be present. The following afternoon a similar demonstration may be arranged for the benefit of the pupils in an adjacent section, and so on, till all of the children have had an opportunity of seeing these operations performed. After the spring rush is over the instructor should make periodic visits to the individual gardens to see that the instructions have been properly carried out. The frequency of these visits will depend upon the number and accessibility of gardens on his route. He should aim to visit each garden at least once every two weeks during summer vacation. The younger and inexperienced gardeners often require more frequent visits than the upper-grade boys and girls. Some teachers manage to see every child once each week, and they believe that every trip is worth while.

Intensive methods.—Probably the most conspicuous weakness of former efforts of children has been the failure to make full use of the land. The teacher on his trips of inspection and instruction will find abundant opportunity for giving assistance along this line. Children should be shown that by the proper selection of companion crops the best use of the land may be made from the beginning, and by the prompt use of succession crops a continuous use of the land may be made and a continuous supply of vegetables may be produced. In this connection teachers will need to know the space and seasonal requirements of the various crops. Some of the books on vegetable growing furnish many examples of suitable crop combinations.

The instructor also should emphasize the importance of maintaining the fertility of the soil to insure continuous and profitable cropping. He should indicate to children the sources of fertilizer supply. He may be able to arrange with the street department to deposit the street sweepings at convenient places for the use of the children. He may arrange for a combined shipment of lime or of commercial fertilizer to be divided among the young gardeners at wholesale rates. He should show them how the supply of humus in the soil may be maintained by the growing and turning under of green crops and by the making and applying of compost (see Bureau of Education School Home-Garden Circular No. 4).

Trips to near-by vegetable gardens or truck farms should form part of the outside instruction. Such trips may be arranged in advance and constitute part of a day's outing or picnic, the remainder of the day being devoted to games or other kinds of contests. Trips to public markets and produce commission houses are also instructive and tend to broaden the child's views. Visits, also, to some of the representative children's gardens should serve a useful purpose. To see better gardens is always an inspiration, both to the visited and visiting pupils. Such visits should afford an opportunity to call attention to the effect of superior methods of treatment as well as to the results of unfavorable local conditions.

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Gardening the year around.—In many sections gardening may be conducted 12 months of the year, and in most sections the work may be started much earlier and continued much later than is generally believed. Winter gardening often is more profitable than summer gardening. It lengthens out the employment season for the children and furnishes them with a wider range of experience. It makes it possible, also, for most people to share in the wholesome effects following the use of green vegetables as food during the winter months. The use of hotbeds and cold frames and the employment of special methods are necessary for successful winter gardening. Teachers may obtain such information by consulting School Home-Garden Circulars 3, 5, and 6, of the Bureau of Education. Circular No. 10, of the same series, furnishes a suggestive monthly schedule for home garden work in the South.

Instruction circulars and announcements.—In many places the instruction of the children has been done largely by means of printed leaflets. This should be regarded only as a makeshift method. Where gardening teachers are employed, there is not so much need for printed instructions. A printed list of simple instructions, however, for the growing and handling of each crop under the peculiar local conditions would be serviceable. Much information of a general nature may be obtained from seed catalogues and sometimes from the envelopes in which seeds are purchased. Since there is such a variation in soil and climate throughout the country, this information is not sufficient.

In some cases it might be advisable to print a monthly or weekly circular, giving timely instruction and making garden announcements. This service, however, may be conducted just as effectively and at lower expense by means of a bulletin board. By supplying current instructions and by making daily announcements through this medium, children are encouraged to keep a close watch of the bulletin board. Daily papers are usually glad to print such matter, and therefore should be supplied with copies of all announcements and instructions. This makes it possible for parents to keep in close touch with the garden work and the recommendations of the instructor.

CLASSROOM INSTRUCTION.

It is not the purpose here to contribute to the pedagogics of the subject, for the teacher who comes into personal relations with the children can best work out and apply pedagogic ideals. The main purpose is to show the relation between the classroom work and the outside instruction. The emphasis has been placed upon the outside work and especially upon its economic aspects. There is need for coupling up the outside work with the regular school training, lest the children get the idea that gardening instruction is intended

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solely for the purpose of increasing their individual prosperity. Teachers should grasp the opportunity here offered to show that the intensive and economic methods recommended are not only for personal gain, but to prevent waste, which is not only a menace to present prosperity, but an offense against posterity. There is here, also, a great opportunity for the broad-visioned teacher to give children not only a knowledge of some fundamental principles relating to agriculture, but to furnish a glimpse into the wondrous workings of the universe.

Agriculture as a field of knowledge.—With the teaching of gardening must be considered other closely associated subjects. Such subjects as elementary science, agriculture, and nature study are occasionally taught in elementary schools. Different names are often applied to the same kind of instruction, but it makes very little difference what it is called. More depends upon the sources of knowledge from which such instruction is drawn and how it is presented. The instruction means very little unless it is based upon the experiences of the children. Experience in some available fields of science and industry and some compelling motive to induce children to enter these fields must be provided. The occupation of productive agriculture, with its wide interests, affords an opportunity for a great range of experience, and, if made profitable, supplies the necessary motive to attract and hold the interest of children. Later in life the boys and girls should have no trouble in associating with science the knowledge gained through their experience in the successful production of crops. Although not so designated, agriculture is the commonly accepted field from which is drawn instruction in science and nature as taught in the elementary schools. There seems to be no good reason, therefore, why the term "agriculture," or more specifically "gardening," should not be applied to that form of instruction which is intended to bring children into close touch with nature and into harmony with their environment. To the children who are engaged in the work, the term will have a definite meaning. Other terms may be applied to other phases of similar effort.

The reasons for the teaching of agriculture in the schools have been ably presented by Eugene Davenport,[1] dean of the Illinois College of Agriculture. It will be seen that he justifies the use of the subject not only from the standpoint of agriculture, but on the ground of good public policy.

1. To cultivate an interest in and instill a love and respect for land and the occupation of agriculture.

2. To create a regard for industry in general and an appreciation of the material side of the affairs of a highly civilized people.

3. To cultivate the active and creative instincts as distinct from the reflective and receptive, that are otherwise almost exclusively exercised in our schools.

[1] Course of Study for the Common Schools of Illinois, 1908, p. 207.

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PART OF THE GARDEN OF A WALTHAM, MASS., LAD OF 15, WHO RAISED $110 WORTH OF VEGETABLES IN A SEASON.

A 9-YEAR-OLD SCHOOLBOY OF BIRMINGHAM, ALA., AND HIS SCHOOL HOME-GARDEN.

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4. To give practice in failure and success, thus putting to the test early in life the ability to do a definite thing.

5. To train the student in ways and methods of acquiring information for himself and incidentally to acquaint him with the manner in which information is originally acquired and the world's stock of knowledge has been accumulated.

6. To connect the school with real life and make the value and need of schooling the more apparent.

7. As an avenue of communication between the pupil and the teacher, it being a field in which the pupil will likely have a larger bulk of information than the teacher, but in which the training of the teacher can help to more exact knowledge.

How gardening affects the school program.—The introduction of a new subject into an already crowded curriculum is likely to provoke considerable discussion. In this respect history repeats itself. Other new subjects have been introduced in the face of seemingly insurmountable obstacles and sometimes despite strenuous objections from within. Gardening, whether or not it is designated by that term, is bound to be introduced in the elementary schools, and many cities already have given it a place in their school curriculums. The failure to find a place on the school program, however, should not be regarded as an insurmountable obstacle, for successful work may be accomplished by calling together the young gardeners at stated intervals during out-of-school hours. The important thing at the present time is to convince the public of the value of the work, so that when the readjustment of the system occurs, the subject shall be given its proper place.

The amount of classroom instruction necessary will depend largely upon the number of children to be instructed, the amount of outside instruction afforded, and the ability of the teacher. Some schools provide a 40-minute period per week, and the teachers claim that twice this time would not be too much. This is a matter that must be settled locally, and the time allowed for the work will be increased in proportion to the demonstrated value of the subject.

Where a grade teacher has been selected to conduct the garden work in addition to her regular subjects the common practice is to exchange classes once a week with each of the upper grade teachers. A certain period for each grade is given over to instruction in gardening. The gardening teacher, while giving this instruction, is relieved for that period by the teacher whose class is being instructed.

Where a special or an extra teacher is engaged, the school program is so arranged that a definite period may be set apart for gardening instruction. It is a great advantage if the teacher whose class is being instructed can be present. She should be able so to associate the garden work with the regular work as to render both more effective.

Teaching is not telling.—Education has been defined as the modification and development of behavior through experience. This denotes two kinds of effort: First, the acquisition of experience; and second, the expression of acquired experience. As applied to

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the subject in hand, the gardening instructor provides the experience, and the regular teacher provides the means for expression. This is only another way of stating that the gardening instructor sets the children at work and the regular teacher teaches them to speak, read, write, draw, and cipher, to facilitate their reasoning and expressing. Herein lies the explanation of much of the success of gardening in the general scheme of education. Too often children are called upon to express themselves before they have anything to express.

The children, therefore, are expected to get their knowledge from their contact with nature and the affairs of life, and the chief duty of the teacher of gardening is to bring about the proper contact. The children should do their own investigating, their own thinking, and their own expressing. They must be told some things, of course, but these facts should be closely related to their experience, which, in general, should be regarded as a prerequisite to the study of the subject. The actual garden work, therefore, must precede the classroom instruction, and teachers who follow this rule will find that the work of teaching has been greatly simplified.

To couple up the outside work with that of the classroom, it is necessary to follow the project method, which consists in studying in natural order one subject at a time. As each problem presents itself in the garden, it is investigated and conclusions drawn. For this reason much of the work is individual instruction and performed in the individual garden. Many problems, however, will confront all the children at about the same time, and certain phases of these may be studied in the classroom or laboratory. For example, certain problems are presented, in the preparation of the soil for planting, one of which is "what are the conditions necessary for germination?" Simple experiments may be performed in the classroom to show that seeds require air, moisture, and warmth. It can also be shown that some kinds of seed are more exacting in these respects than others. In like manner the functions of the leaves may be studied both in the garden and the classroom. The effect of insect injury to leaves may be observed in the garden, and the principles may be demonstrated in the classroom.[1]

Teaching, therefore, is more than telling. It consists chiefly in creating in children a desire to learn, in supplying them with an opportunity to learn, in directing their learning along desired channels, and in providing them with the tools of expression.

Correlation with other subjects.—Writers on the subject have laid much stress upon the importance of correlating other school subjects with that of gardening. Teachers, also, claim that by using concrete

[1] School Home-Garden Circular No. 2, of the Bureau of Education, furnishes an outline for a course in vegetable gardening based upon the project method of teaching. It has been prepared especially for use in teacher-training courses; but, in that it suggests many projects, teachers should find it useful in the teaching of gardening.

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garden problems they can make their teaching more effective. From what has been said in the preceding discussion there should be no doubt that mathematical exercises employed from necessity in garden computations, or that can be turned to good account in garden work, have a vital significance in the mind of the child; that the writing of a story relating garden experiences makes the practice of composition writing a natural and spontaneous exercise; that keeping an account of the business transactions of the garden enterprise will motivate and make easy the study of bookkeeping; and that the making of plans for planting and for the improvement of home surroundings will make drawing and art studies more real and purposeful.

The gardening instructor, therefore, should keep the other teachers informed concerning the kind of work in progress and suggest ways in which they may make use of the garden experiences of the child in the teaching of regular subjects. The regular teachers, on the other hand, should suggest to the gardening instructor ways in which he may have the children utilize promptly the information gained in the classroom. Much of the school work may be interwoven with garden practice, but there is no necessity for the strained effort that sometimes has been exerted to correlate in every conceivable way all kinds of school subjects with that of gardening. In general, the children are capable of doing their own correlating.

DISPOSING OF THE CROP.

Supplying the home.—The most available market for the products of the garden is the individual home. Children should be encouraged to raise the quantity and kind of vegetables needed by the family, both in the fresh and the canned condition. In some places both the children and teachers have complained that they have been unable to dispose of the crop at a profit. Where such conditions exist more care should be exercised in planning the garden to suit the needs of the family. If children raised nothing more than the supply needed by the family, the results would be astonishing. Few families use less than $50 worth of fresh or canned garden products during the year, and many use twice this quantity.

Parents should make some business arrangement with their children who are doing the garden work. They should either pay for the vegetables and other supplies outright and charge the children with a nominal amount for their keep, or open an account with each child and on the credit side enter the amount and value of the vegetables, and on the debit side enter any expense they feel justified in charging up to the child for his board. The child, of course, should keep the accounts, as suggested under another head. This practice affords a business experience for the child and enables him to make a more complete record of his garden enterprise. It

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also emphasizes the obligations of the child to the family and teaches him the lesson that he must pay his way.

Developing a special trade.—Where there are a number of children in the family and where there is abundant land, the older boys and girls should be able to raise some vegetables, fruits, or flowers for market. The most available market next to the home is that of supplying the neighboring trade. There are always some homes where there are no children, and there are usually some where no, or insufficient, land is available. Most communities also have their boarding houses, restaurants, hotels, and hospitals. There is usually, therefore, a good opportunity for developing a special trade with people in the neighborhood. Special customers of this kind usually pay the best prices, especially if the gardener will take the responsibility of keeping up a constant supply. Some pupils may arrange to supply a bouquet of flowers at stated times to a certain number of customers. Others may arrange with a few families to supply them with a different kind of vegetable every day of the week. A number of children may combine in supplying certain boarding houses. Boarding houses are often willing to pay an extra price for vegetables prepared ready for the kettle or for the table. Peas and lima beans, upon request, may be shelled ready for use; corn may be husked; celery, onions, and radishes may be trimmed and washed; and salads, even, may be prepared for the table.

Many boys and girls have been able to create a demand for certain kinds of vegetables of high quality. Few city people have had the opportunity of obtaining vegetables of high quality fresh from the garden. Varieties of vegetables differ greatly in quality, and, as a rule, the low-quality sorts are easier and more frequently raised by market gardeners. Furthermore, vegetables deteriorate after harvesting. In some cases this process is quite rapid. The sugar in such vegetables as peas, beans, and sweet corn rapidly changes into starch, with the resultant loss in quality. Market vegetables generally are harvested one day and brought in to market the next, and in cases of long-distance shipments it is several days after harvesting before they reach the consumer's table.

Many boys and girls, therefore, should be able to work up a good trade in fresh vegetables of high quality. One boy has developed a special trade with green lima beans. He says that his customers declare they never knew what fresh lima beans tasted like till he brought them around. He started two years ago by presenting a pint to each of three families. He is now a lima bean specialist and can not supply the demand. Another boy has worked up a large trade in Golden Bantam sweet corn. People who once taste fresh corn of this variety are sure to call for more. Many girls, also, have developed special markets for their canned products and have no trouble in selling all they can produce.

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Sometimes boys and girls have displayed their goods on tables located on the edge of their lawn and near the sidewalk, so that people passing may be induced to buy something. This has been very effective, and boys and girls have learned that hungry people on their way home from work with their week's wages in their pockets are very easily tempted by fresh vegetables, luscious fruits, and attractive flowers. The teacher will have abundant opportunity, therefore, to display his originality by suggesting ways for developing special trades.

Public markets.—A school superintendent, in discussing the need for a market, states:

> The children take a pride in their work and the products of their efforts, but they want to be sure of some financial returns before starting on such a venture. To the average boy or girl there is no glory in a garden, just for the sake of having one, but there is, however, if the reward is sufficiently tempting and remunerative.

Where the schools have been encouraging productive gardening for several years, they have found it necessary in some cities to develop some kind of public market to take care of the surplus vegetables. In some places a stand in the public market has been engaged for the use of children. In other cities, special places have been assigned for the purpose of serving as market places. These are sometimes located on the curbing of certain sections of streets, and sometimes on the grounds adjacent to public buildings.

Where public markets are provided, some responsible person should be placed in charge. Such a person should give the children instruction in the proper ways to prepare and display their produce in the most attractive way and to train them in business methods. The market should be open only on stated occasions, so that the public may know when to patronize it. Saturday morning is probably the best time for children to do their marketing, although during summer vacation they may find it desirable to open the market two or three days each week.

The following account of the experience of the schools in Rochester, Minn., may be helpful to those who are planning for some effective way of disposing of the children's products. The part played by the Civic League is especially commendable:

> One of the chief criticisms to the promotion of this kind of work is that the children, after once producing the vegetables, flowers, etc., have no means of disposing of them. This objection has been largely overcome by the Civic League, the members of which, realizing this fact after several years of garden work, set about devising means for disposing of the produce raised by the children. The public market plan at once suggested itself. None of the leaders had previously any experience in this line of work, consequently the first few market days were in reality more of an experimental nature.
>
> The start was made in rather a small way at first by placing a number of tables on a corner of the Central School lawn, near one of the mainly traveled streets. On these tables the children placed their vegetables, flowers, etc., which were neatly prepared and displayed, and proceeded to sell them. Later on, as the quantity of market

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stuff increased, more tables were added. A large portable sign on which was printed CHILDREN'S MARKET was erected a short distance back of the tables as a sort of an advertisement. Instead of sitting down and waiting for customers to come to the market, the various boarding houses and private homes were called by phone and their orders taken. The youngsters having the kind of articles desired were sent to make the delivery. In this way practically everything was disposed of by the closing time.

The market was held regularly twice a week, on Wednesday and Saturday mornings from 9 till 12 o'clock. The first market was held about the middle of June and continued twice a week till the first week in September, when it had to be discontinued on account of the opening of school. Every market day two ladies of the Civic League were present to look after the management of it. Practically all the sales were made by the children themselves, some of whom became quite proficient as salesmen. The ladies in charge gave but little assistance, except where it was necessary. The idea in this was to teach them to do business for themselves, thus teaching them self reliance and developing in them business ability.

Storing vegetables for winter use.—From the lack of knowledge few people realize the possibilities in storing vegetables for winter use. With a cool cellar many kinds of vegetables may be kept for several months. The root crops, like beets, turnips, and carrots, keep best if packed in moist soil and stored in a cool place. Of course, they will not stand freezing. Onions demand a dry place. Winter squash require a warm, dry storage, for which the furnace room, after the fire has been started, answers the purpose. Parsnips and salsify may be left in the ground for early spring use. Where cellars are not available, or where the furnace makes the cellar too warm, many of the vegetables may be stored in pits in the garden. Apples, also, may be kept in this way. They must be well covered with straw or leaves, to keep them from freezing. The straw or leaves are held in place by a covering of soil. Where a good, cool cellar is available, and when boys and girls understand the principles of storage, they often may find it profitable to store some vegetables for home use or even for sale during the winter.

Canning.—Reference has been made to the remarkable achievements of the members of the garden and canning clubs of the South. In many instances girls have been able to make handsome incomes from the sale of canned produce. Boarding houses, restaurants, hotels, and private families are demanding larger and larger quantities of canned vegetables and fruits. They are popular because they can be so easily and quickly prepared. Boys and girls, therefore, should have no trouble in disposing of their surplus products in the canned condition. The children would do well to can enough at least for home consumption. The practice of canning is worth while, also, because it gives a wider range of experience and affords a training in a useful and closely related occupation.

The operations connected with canning either in tins or in glass are not difficult and may be performed by children 10 years of age. As a rule, the canning in glass jars for home use and for special trades is recommended in preference to canning in tins. A common wash-

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boiler on an ordinary stove will answer the purpose, but, in this case, a platform should be arranged around the stove to make it easier for children to handle the jars. There are on the market several kinds of home-canning outfits which are more convenient than the wash-boiler on the kitchen stove. A group of the older boys and girls may find it advisable to purchase one of these on a cooperative basis, or the school may purchase one or more to lend to pupils. The various State colleges are encouraging this work among the rural boys and girls, and usually may be prevailed upon to give demonstrations in canning, whenever requested.

It is important, for the sake of developing a reputation, that the school use a uniform type of jar and a distinctive label for its canned products. The school, also, should insist upon maintaining a high standard of quality. The pupils who do not comply with the regulations in this respect should not be allowed to use the standard label. This furnishes another lesson in the business value of honest dealing.

KEEPING RECORDS.

Children's records.—An admirable opportunity for giving children training and experience in keeping accounts is often neglected in garden work. To afford a training in bookkeeping is not the purpose of the work, but the practice is worth while from the garden standpoint. It is desirable that children be able to compare the profitableness of gardening with other occupations. It is also worth while for them to learn the value of labor in terms of dollars and cents. If any of them are to follow gardening or farming as an occupation, they should be taught that business methods may be applied to farming—a lesson most farmers, to the detriment of the industry, have failed to learn.

The record keeping should be made as simple as possible, and no attempt should be made to have children report every incident connected with the work in the garden. The child's record book should not be a diary, in any sense. Gardening notebooks especially arranged for the keeping of weather records, dates of sowing, thinning, transplanting, watering, etc., can be purchased. The keeping of such records, however, is an unnecessary burden and furnishes information that is of no practical value. The planting of crops and the performing of the various operations is no longer done "by rule of thumb." The gardening program, as well as the proper treatment for the present season, is determined by the peculiar behavior of crops, rather than by the conditions and treatment of former years. The treatment of former seasons may or may not be the proper treatment for the present season, and the probability of error from following such records exceeds that of following the dictates of good judgment.

The garden record should show all expenditures, including rent of land, labor, and the cost of fertilizers, seeds, spraying materials,

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tools, and other supplies. Many of these items often are contributed without expense to the child, but the cost in each case should be estimated at prevailing rates. As a rule, no outside labor will be required, but a careful record of the pupil's own labor should be kept and estimated at about 6 to 10 cents per hour, depending upon age and experience. The cost of tools and other kinds of equipment that usually last for more than one season should be prorated, so that the expense may be spread over the approximate number of years of service. Since most garden tools last for at least three years, the initial expense may be divided by three. Tools that have been used and that belong to the home may be charged at about one-third their original cost. The cost of lime or other slowly dissolved fertilizers that are applied only once in two or three years may be prorated in the same way.

The records should show, also, all forms of revenue from the enterprise. The chief revenue, of course, will be from the sale of products. The records should show the amount and estimated value of the products used by the family, distinct from those sold outside. In estimating the value it is necessary that the children and the instructor keep in close touch with the market. Certain papers give daily quotations, and these, if necessary, may be used as a guide. There should be a definite understanding regarding the measures employed, and these should be the measures in common local use. If beets are usually sold in bunches of a certain number and size, this should be the accepted standard. When tomatoes are sold by the quart or pound, the same system should be followed by the children. Some exceptions to this rule may be made, of course, where children are catering to a peculiar private trade.

There may be other forms of revenue, such as prizes, outside labor, and the sale of unnecessary tools and surplus seed or fertilizer. It is not advisable to credit outside labor to gardening unless the pupil helped some other person in garden work and received money in payment. No trouble should be experienced in properly crediting any other item.

The children should make their entries for expenses and receipts daily, and some form should be supplied for the purpose. The simplest and most inexpensive form is a small scratch pad costing 1 cent. One leaf of this may be used for each day's record, and at the end of the month or season the items are transferred to the monthly or yearly report blank, as desired. In some cases quite elaborate booklets, in which to make their daily notations, are supplied to children.[1] Provision is made in these for daily expenses and receipts, for the labor account, for summaries, and for a written statement of garden experiences and conclusions.

[1] The Bureau of Education has prepared a gardening record book for children. This form is not for general distribution, but sample copies may be had upon request.

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DEPARTMENT OF THE INTERIOR.
BUREAU OF EDUCATION.

HOME GARDEN MONTHLY REPORT.

Month..... Year.....

Name of pupil.....

Address (street and number).....

PRODUCTS HARVESTED.

Name of crop.	Amount used at home.	Amount sold.	Money value.
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....

EXPENSES.

Quantity.	Articles.	Price.	Amount.
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....

WORK.

.....hours worked at .....cents per hour .....

.....

FIG. 5.—Suggestive form for home garden monthly report.

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DEPARTMENT OF THE INTERIOR
BUREAU OF EDUCATION.

TEACHER'S RECORD.

Name of pupil ..... Age..... Grade.....

Address..... Location of garden .....

Former experience.....

Attitude of parents.....

Size of garden..... Character of soil.....

Peculiar local conditions.....

Sketch below the planting plan, indicating the name and location of crops:

Record here monthly reports of receipts and expenditures.

Month.	Receipts.	Expenditures.
Jan	.....	.....
Feb.....	.....	.....
March...	.....	.....
April ...	.....	.....
May.....	.....	.....
June.....	.....	.....
July	.....	.....
Aug.....	.....	.....
Sept	.....	.....
Oct.....	.....	.....
Nov ...	.....	.....
Dec.. ..	.....	.....
Total .	.....	.....
Profit .	.....	.....

Over.

FIG. 6.—Suggestive form for teachers' records.

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RECORD OF INSPECTIONS.

Name of pupil.....

Date, 19...	Condition of garden.	Suggestions offered.	Nature of instruction.

FIG. 7.—Reverse of teachers' record blank (Fig. 6).

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It is desirable that children be required to make monthly reports during the gardening season. These will be of assistance to the instructor and will tend to intensify the efforts of the children. A suggestive form for the purpose is shown in figure 5. The children, also, should be expected to make and present a summary of their year's business. A written statement of experiences and conclusions in connection with this is worth while in that it starts the child to thinking about the project as a whole and considering the advantages of the work and the opportunities for improvement during the following year. It also furnishes experience in expressing ideas in writing.

Teachers' records.—The use of either a card or a loose-leaf system of keeping records of the work of the children is recommended for gardening teachers. Such records should show the name, address, age, and grade of each pupil in gardening. It should show, also, the location and plan of each garden. Space should be provided for entering the monthly reports of receipts and expenditures as submitted by the children, and for recording notes pertaining to the condition of the gardens and the recommendations and instructions furnished at the time of each visit. These cards or loose leaves should be in such form that they may be carried about by the teacher to facilitate in the work of inspection and instruction, and at the same time serve as permanent records. Inasmuch as they may be carried conveniently in a folder, loose leaves probably are better adapted to the purpose. A separate leaf may be used for each pupil. The accompanying illustration (fig. 6) should serve as a guide in the selection of a suitable form. It represents a loose leaf printed on both sides. The bottom of the face of the sheet is opposite the top of the reverse side, so that when the leaf is turned it is in position for writing. The back of the sheet is reserved entirely for records of visits.

AROUSING AND MAINTAINING INTEREST.

In the teaching of gardening, as with other subjects, there is great need for enthusiasm. Teachers, in order to arouse enthusiasm for service, must themselves be enthusiastic. If all teachers had the ability to inspire their pupils, as well as the proper point of view toward the work, there would be no need for discussing methods of arousing and maintaining interest. The teaching of gardening as described here is an active method, as distinguished from the sit-still method. It is intended that it should give to the child freedom of action and freedom of thought. It puts the pupil in touch with living things and encourages exuberance, spontaneity, and originality. These are the conspicuous features of the method, and any attempt to suppress them results in a waning of interest as well as a depreciating return.

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It has been repeatedly said that in the teaching of gardening there should be a strong motive, and this point is emphasized again because it is too often overlooked. If children are not hampered by prevailing school practices, and if shown how they may conduct profitably a business enterprise in gardening, the matter of maintaining interest need not concern the teacher. In common practice, however, several methods have been adopted. Some of these are of considerable value and others have not sufficient merit to warrant their adoption. It seems desirable, therefore, to discuss some of these common practices.

Contests.—The spirit of contest prevails in all games that are popular with children, and without it the games would be devoid of the power to interest. The incentive is the desire of achievement, with its attending honor or notoriety. An attempt frequently has been made to put the spirit of contest into gardening. Contests have been arranged among individual children, among grades, and among schools. With the expenditure of considerable effort and enthusiasm some conspicuous results have been obtained in this way, but where the spirit of play has been overemphasized there has been a corresponding loss in the spirit of work. As a rule, something more than the spirit of play is needed, something that will not only bring notoriety to a few, but will mean a conspicuous personal gain to all participants.

Prizes.—With the idea of increasing the incentive, the offering of prizes has become a common feature of gardening contests. While this practice has brought out some conspicuous individual and community achievements, it has not been productive of lasting results. Only a small proportion of the children achieve the honor of winning prizes, and the others frequently become disappointed. For the sake of fairness in gardening contests, the children usually are not expected to obtain any help from parents or other members of the family. Since it is always desirable to encourage a spirit of mutual helpfulness between children and parents, this is an unfortunate, though necessary, regulation in prize contests.

The offering of prizes also tends to encourage dishonesty, for there is a strong temptation on the part of the child to get help from outside and to render false reports. Parents, and sometimes teachers, when the respective interests of their children and schools were at stake, have been known to countenance such forms of dishonesty When the children have the approval of both home and school on matters of this kind it is not difficult to imagine the effect upon their moral development.

There has been too much exploitation in the matter of organized contests for children. Organizations and individuals who offer prizes are often more interested in furthering their own interests than those

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of the children and frequently acclaim through the press and in other ways the remarkable achievements of certain childre ho may or may not have accomplished something worth while. Sometimes the prizes awarded are altogether out of proportion to the achievement. Boys and girls have won free trips and large cash prizes when there have been no other contestants. In other cases children have won prizes of $1 or $2 for achievements which have brought profits of from $100 to $200. Children should be given to feel that the rewards in life come in proportion to the effort expended and that the occupation of agriculture offers its own just rewards. Many people have realized the danger in offering prizes of high value and have endeavored to evade the consequences by offering useful articles that may be used in garden work. If valuable prizes are to be offered, these are probably the most approved kind, for they tend to encourage further garden effort. The great objection to prizes in general, however, is that they detract attention from the real achievement. Children, with their attention focused upon the prize, are likely to lose sight of the achievement for which the prize is offered. With adequate instruction and inspiration the results of their endeavors in the form of dollars and cents, as well as in pleasure, should be sufficient to induce the maximum effort. The desire in children for notoriety and for praise, however, should not be overlooked, and just recognition always should follow achievement.

The idea of inducing children to do things that they should do for their own good always seems strange, and in some cases has become an absurdity. It may be contended that children will not voluntarily conduct garden enterprises without some extra inducement. The extra inducement should be in the form of assurance that they will get reasonable returns for their efforts. If a profit of from $25 to $50 is not sufficiently enticing, the offering of $5 or $10 in prizes surely would be unavailing. There may be some justification for offering prizes for superior service in the matter of civic improvement or in anything for the public good. The personal gain in this case is more remote and the child is merely rewarded for services rendered to the community. Even in this instance a better opportunity for a lesson in citizenship is afforded if the children can be sufficiently interested in the welfare of the community to offer their services without hope of reward.

Badges, pennants, trophies, etc.—The use of badges that represent achievement has been productive of much good by way of maintaining interest. The chief value of badges, as compared with prizes, is that they emphasize the achievements for which they stand and that the benefits are more generally bestowed. Most children value a badge of achievement that can be displayed as highly as a $5 prize that must be carried in the pocket, where no one can see it. The use

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of the badge makes it possible to encourage each child who achieves success in gardening, and the degrees of success may be indicated by different types or grades of badges.

Badges, to be of most benefit, should be progressive in character; that is, they should be made in series, each one of which furnishes a different degree of recognition. The four-leaf-clover badge, commonly used by the boys and girls clubs, represents this type. The child who successfully completes one season's work is supplied with a badge having a single leaflet on the clover stem. On the completion of the second year's work it is exchanged for one with two leaflets, and so on until the four-leaf badge has been achieved. These badges come in bronze, silver, and gold, so that, if desired, a few of the higher-grade specimens may be bestowed upon the pupils who have made phenomenal records. A similar badge is in use in Cook County, Ill. This is a small bronze badge in the shape of a star. In the ring encircling the star are 10 holes, into each of which may be inserted from time to time a small enamel star. This allows for two or more achievement stars in a single season and yet extends the influence of the reward over a number of years.

School pennants and trophies for gardening achievement are used sometimes to arouse a spirit of friendly rivalry among schools or classes. This is a commendable form of competition, but demands a liberal display of administrative ability to promote it with equity and to prevent antagonism. Children should be given to understand that the contest will be abandoned upon the first indication of irregularity.

School credit.—The subject of school credit for home-project industrial work has provoked much discussion during recent years. The schools have become so accustomed to the credit system that there is a common belief that the child's educational achievements, whether accomplished at home or at school, should be accurately measured and accredited. The growth in complexity of the school system has made school credit so ostentatious that children have come to regard it as the main purpose of education. This inclination to magnify credit is not restricted to the elementary schools, but extends through the high schools and colleges. It would seem very desirable if some way could be found to direct attention to the real purpose of education. In other words, the schools should aim to prepare young people for definite kinds of service and endeavor to change the pupil's focus from the school credit, the school standing, or the diploma, to occupations, or opportunities for service, for which they are being prepared.

School credit, of course, must be accepted, but less rather than more attention should be directed toward it. Concerning credit for home-

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project work, there seems to be no valid reason for controversy. Most of the confusion has come from trying to graft the new system of training upon the old. When schools come to acknowledge the new system and keep it distinct from the old, there will be no more embarrassment concerning credit. If credit is to be given for school work, it certainly should be given for home work of a bona fide and approved nature. But there is no necessity for trying to compare "home credit" with ordinary school credit. One may be as good, or better, than the other, but they are different. Consequently, there should be two parallel systems of credit. In Cook County, Ill., the schools make use of the many-starred achievement badge, as previously described. They give the children full credit by means of these badges for the successful completion of all home projects approved by the school.[1]

Gardening clubs and associations.—There is a tendency nowadays to introduce the social idea into all human activities and to give up individualistic notions. The rural boys and girls have banded themselves together by means of the agricultural and home-making clubs. This movement started apart from the school, but has later come into the school and has brought the club idea with it. It may be more important for boys and girls of the country to organize clubs than for those of the city, but even here there are many advantages. The club spirit appeals to young people and serves to increase interest and to stimulate effort. Each school may have its gardening club, and the clubs of any city may combine to form either a consolidation or a federation. Such organizations may emphasize either the social or commercial interests of its members. The smaller cooperative associations as educational features are especially valuable. As suggested under another head, these associations may undertake large garden projects, using borrowed money, if necessary, to finance the work. There are various ways in which the club idea may be made to promote gardening and to contribute educationally, socially, and economically to the welfare of the children.

Exhibitions.—Probably there is no better way to intensify interest in gardening than by the holding of exhibitions for the purpose of displaying and disposing of the products of the children's gardens. Too often, however, the educational features of the work are overlooked, and the exhibitions in such cases are nothing more than heterogeneous masses of garden truck. An exhibition, to serve its full purpose, should be so arranged that all entries in the various classes are grouped by themselves. In this way the individual entries may be compared, and anyone may see the superior quality of the successful exhibits. In addition to the classes for each kind of product, there may be one for general collections. This should

[1] See Bull. 385, U. S. Dept. of Ag., "School Credit for Home Practice in Agriculture." F. E. Heald.

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give each pupil a chance to make an elaborate display of the products of his garden, and thus furnish the chief inspirational part of the exhibition.

The educational value of the exhibition is dependent not only upon the arrangement of the displays, but greatly upon the character of the judging. The characters that count most in the market are the ones that should receive especial attention in judging. While there is more or less interest displayed over the largest potato or the largest squash, such exhibits have no educational value. The largest potatoes are not the ones that bring the highest price on the market. With most garden products the element of uniformity—uniformity of size, of shape, and of color—counts most. The chief value of exhibitions, from the educational standpoint, therefore, is the opportunity afforded to acquaint children with market requirements.

Exhibitions also serve a useful purpose in providing a market for produce, but this is a feature often overlooked. Some schools make a practice of holding an exhibition every month during the garden season. This furnishes a means for disposing of surplus products and keeps the interest at a high pitch throughout the season.

The awards of merit should be in the form of ribbons or cards, rather than money, and in this way obviate the danger of encouraging dishonesty.

OVERCOMING OBSTACLES.

There have been many and varied reasons offered for failure to introduce gardening. Among those that have been presented by superintendents the following may be mentioned: "Can not get support of board," "unable to obtain funds," "town too poor," "more teachers and new buildings are our greatest needs," "unable to secure teachers," "work controlled by other city departments," "local organizations would be offended if school should take over any part of their work," "no available land," "mosquitoes too troublesome for children to work in garden." Some of these are valid excuses for a temporary postponement, but none of them raise difficulties that are insurmountable. The thoughtful superintendent will realize that the only way to bring about reforms is to convince the public that the work is necessary and desirable. The means will work themselves out just as they have in all other needed reforms. School boards will approve and provide the necessary funds; poor towns will learn how to become prosperous and how to take care of growing needs; teachers will be prepared when the demand comes; people will give the school an opportunity to direct all educational movements; means will be provided for bringing the child in contact with the soil; and mosquitoes will not trouble children any more while at work in the garden than while at play on the street.

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Teachers also make their excuses. Some say that their superintendent is opposed to gardening. Others say that their principals claim all credit for achievement. Many say that their efforts in outside work are not rewarded. Even in the face of these and many other obstacles, teachers have accomplished much. The conscientious, untiring, and oftentimes unappreciated effort of individual teachers has done more to develop favorable public sentiment toward gardening than any other single agency.

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DEPARTMENT OF THE INTERIOR
BUREAU OF EDUCATION

BULLETIN, 1916, No. 41

AGRICULTURAL AND RURAL EXTENSION SCHOOLS IN IRELAND

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AGRICULTURAL AND RURAL EXTENSION SCHOOLS IN IRELAND.

INTRODUCTION.

Ireland has a total area of 32,373 square miles, or approximately 21,000,000 acres, of which about 15,000,000 are arable and the rest mountain, bog, and water. It is practically the size of the State of Maine, or slightly less than one-half the size of Missouri, or one-third of Oregon. The population in 1911 was 4,382,000, of whom 860,000 were reported as engaged in agriculture as an occupation. This is 45 per cent of the total number engaged in occupations, not including housewives.

Public education is under the control of three different boards—the Commissioners of National Education, the Intermediate Board of Commissioners, and the Department of Agriculture and Technical Instruction.

The Commission of National Education, composed of 32 persons, has charge of the Irish National Schools, which constitute the elementary free public school system. The immediate head of the system is the Resident Commissioner of National Education. Assisting him are various officers employed in the Department of Education, among whom are 6 chief inspectors and approximately 66 district inspectors, or an average of 2 to each county. These are field men with inspectional and supervisory functions similar to those of superintendents of schools in the United States. The school course is eight years in length and includes practically the same subjects as those in the elementary schools in America. Each school is under a local "manager" or trustee. The building is provided by the local community, and the manager engages the teachers, who, however, must be approved by the Department of Education. The teachers are paid from National funds. The administration of the course of study is entirely in the hands of the national department. School attendance is compulsory up to 14 years of age.

The Intermediate Board of Commissioners has control of a large number of secondary schools, practically all of which were started as private schools and remain in a measure under private control. Nearly all have been in existence for many years. In connection with a large number of them are elementary grades, which are also under the charge of the intermediate board. Some of these schools

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are endowed, many charge tuition, and all receive funds from the national treasury through the intermediate board. Many of them receive funds also from the Department of Agriculture and Technical Instruction for following the department's program in teaching experimental science, drawing, manual instruction, and domestic science. The total amount received from the two boards amounts to about $26 per year per pupil. Many of the schools have other sources of income, being provided for by religious orders, with voluntary teachers; otherwise they would be unable to maintain themselves. The salaries paid to these teachers are very small.

The Department of Agriculture and Technical Instruction has control of a group of special technical or agricultural schools, either by itself or in cooperation with local authorities. It has control also of the instruction in industrial and vocational subjects, experimental science, and manual instruction in day trade-preparatory schools and other secondary schools which have adopted the department's program in these subjects, as mentioned in the preceding paragraph.

The National Board of Commissioners has been in existence since 1845; the Intermediate Board since 1878; the Department of Agriculture and Technical Instruction since 1900. Most of the industrial and vocational work in Irish schools has been introduced since this later date, although several well-known schools of industrial or vocational character, such as the Albert Agricultural College, were already in existence before 1900. Most of them were turned over to the department on its establishment.

Cooperation among the three boards is attempted through a "consultative committee on education," composed of the vice-president (the active head) of the Department of Agriculture and Technical Instruction; the Resident Commissioner of National Education; one person appointed by the Intermediate Education Board; and two others appointed by two advisory boards to the two divisions of the Department of Agriculture and Technical Instruction, known as the agricultural board and the board of technical instruction.

As the various institutions for special education in agriculture and rural arts and industries are under the control of the Department of Agriculture and Technical Instruction, an outline of the activities of the department is included here. Information concerning its creation and organization is given later. It has oversight and control of several central institutions:

1. The Royal College of Science.
2. National Museum of Science and Arts.
3. National Library of Ireland.
4. Royal Botanical Gardens.
5. Metropolitan School of Arts.
6. Geological Survey of Ireland.

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The department is divided into two divisions, a "division of agriculture" and a "division of technical instruction." The division of agriculture engages in four principal operations:

A. Agricultural instruction.

B. Live-stock improvement schemes.

C. Special investigations, including experimental work in soils, fertilizers, crops, and animals, etc.

D. Control functions relative to plant and animal diseases, the sale of impure foods, drugs, fertilizers, forestry operations, fisheries, etc.

The agricultural instruction is given through—

1. The Royal College of Science, Agricultural Department, located in Dublin.
2. Albert Agricultural College, located at Glasnevin, near Dublin.
3. Three agricultural stations schools—at Athenry, Ballyhaise, and Clonakilty.
4. Three other agricultural schools—at Antrim, Mount Bellew, and Strabane.
5. Eighty-four winter agricultural classes, each from 15 to 20 weeks in duration.
6. Two Agricultural Schools for Girls, the Munster Dairy Institute, at Cork, and the Ulster Dairy Institute, at Cookstown.
7. Nine schools of rural domestic economy.
8. One hundred and ninety-five winter dairy and poultry classes in the various counties, each from two to four weeks in duration.
9. Itinerant instruction in agriculture, through 45 county agricultural instructors or agents.
10. Itinerant instruction in agriculture in the "congested districts,"[1] through 56 agricultural "overseers."
11. Itinerant instruction in horticulture and beekeeping, through 41 county instructors.
12. Itinerant instruction in butter-making and poultry, through 52 county instructors.

The department has the entire management of the Royal College of Science, the Albert Agricultural College, and seven of the eight agricultural schools mentioned, and partial management in cooperation with local authorities of the Mount Bellew Agricultural School, the nine rural domestic economics schools, and of all the itinerant instruction and classes.

The work of the division of technical instruction includes among other functions the control of the various technical schools receiving aid from the imperial grant:

1. Royal College of Science, Technical Department, Dublin.
2. Metropolitan School of Arts, located at Dublin.
3. Irish Training School of Domestic Economy, at Kilmacud, near Dublin.
4. Killarney School of Housewifery, at Killarney.
5. Londonderry School of Housewifery, at Londonderry.
6. Training School for Lace and Sprigging Teachers at Enniskillen.
7. "Industrial Annex," for training of manual instructors at Dublin.

[1] See appendix.

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8. Technical schools and other centers where supplementary training is given for public-school teachers in experimental science, domestic economy, rural science, school gardening.

9. Fifteen day trades-preparatory schools, located in 15 different cities.

10. Ninety-one urban technical schools.

11. Technical education in rural districts through itinerant schools of domestic economy, including cookery, laundrywork, home sewing, housewifery, hygiene and home nursing, and schools of manual instruction in wood, in lace and crochet making, sprigging, and embroidery.

The conduct of the day trades-preparatory schools, urban technical schools, and rural itinerant schools are cooperative schemes of the division of technical instruction with local city or county authorities. Of the activities of this division, only those for the rural population are described in this bulletin. These include, in addition to the itinerant schools in domestic economy and carpentry, the Irish Training School of Domestic Economy, where the teachers for the rural itinerant schools of domestic economy are trained, the "Industrial Annex," where manual instructors for the rural itinerant schools of manual instruction are trained, and the Training School for Lace and Sprigging Teachers.

The department is supported by funds received from Parliament, an annual continuing appropriation known as the department's "Endowment fund," and special appropriations for administrative expenses and agricultural development schemes. The "Endowment fund" includes £166,000 annually provided under the act creating the department, and £24,000 under other acts, or approximately $921,500. The special Parliament appropriations for the fiscal year ending March 31, 1914, for the administrative expenses of the department, and to provide for research and control work, amounted to £207,457; for expenses connected with the maintenance of the various schools and institutions in whole or part under the control of the department, £141,887. It will be observed that these two appropriations and the endowment fund make a total of over $2,600,000.

The money is used for many purposes, including the following: Support of the department schools mentioned above; assisting schools which adopt the department's program for experimental science, drawing, manual instruction, and domestic economy; aid to technical schools, and science and arts schools and classes; support of the National Museum of Science and Arts, the National Library of Ireland, the Metropolitan School of Arts, and the Royal Botanic Gardens; agricultural research and advisory work, experimentation, control of plant and animal diseases, afforestation and forestry operations, fishery development, improvement of live stock; administration of the act for pure foods and drugs, weeds and agricultural seeds; support of local county schemes for agricultural betterment under the oversight of the county advisors; and maintenance of the

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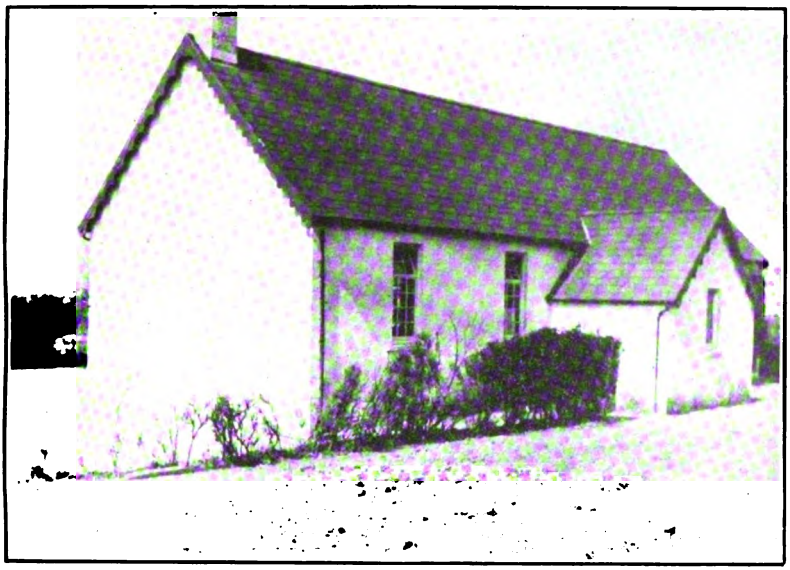
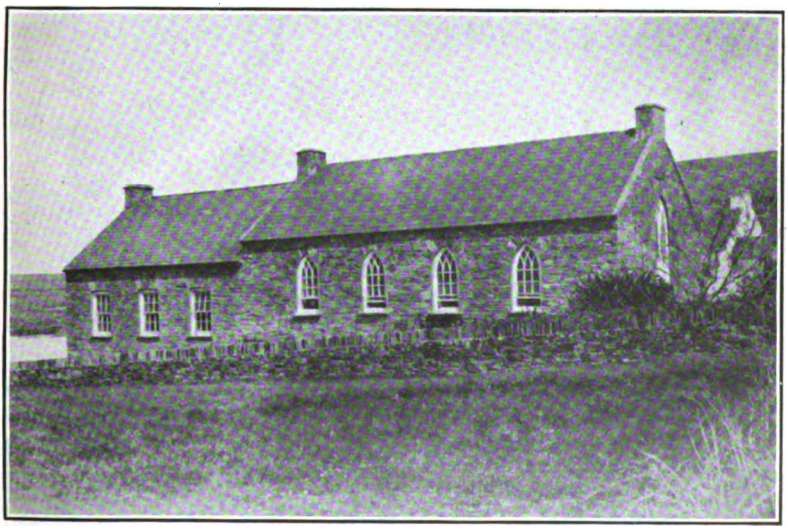


A. TYPICAL RURAL SCHOOL IN THE SOUTH OF IRELAND.



B. ANOTHER SOUTH OF IRELAND RURAL SCHOOL.

This and the school shown above are over 100 years old.

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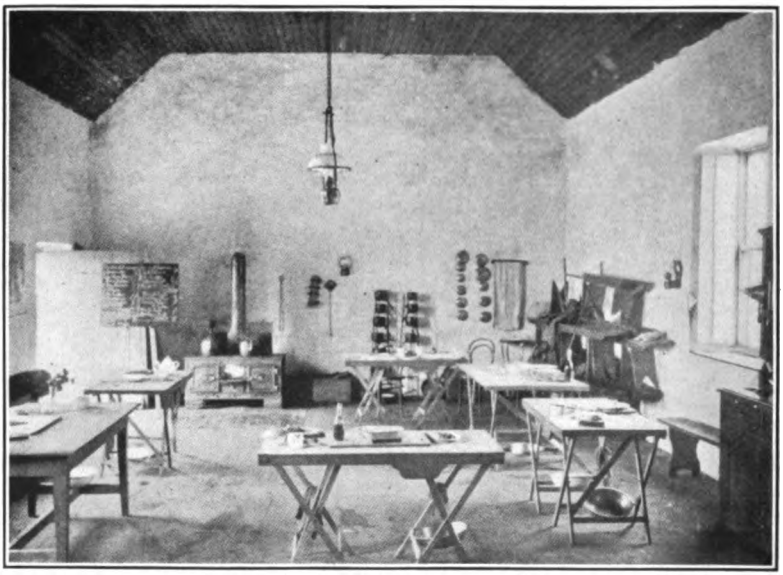
A. CLONASLEE, QUEENS COUNTY; REACHED BY ITINERANT INSTRUCTION IN DOMESTIC ECONOMY.

Second building on the right is the "Town Hall," in which itinerant schools in agriculture, poultry, butter making, cooking, and farm carpentry are held.



B. ITINERANT INSTRUCTION IN DOMESTIC ECONOMY; INTERIOR OF THE SAME HALL FITTED UP AS A CLASSROOM.

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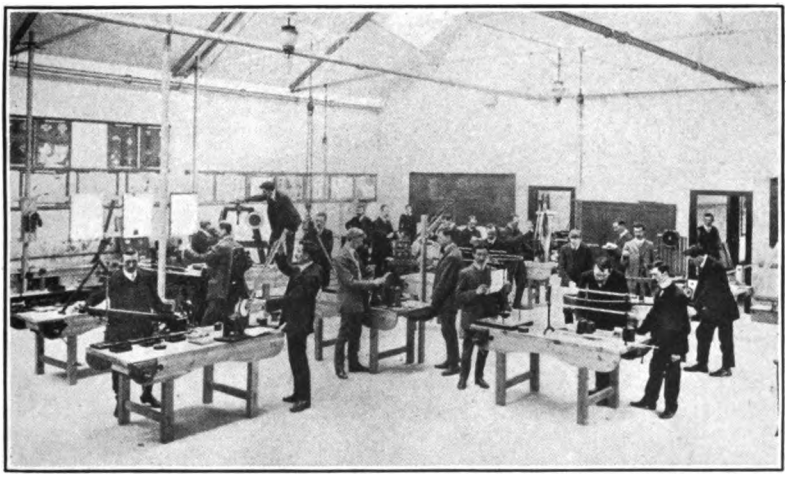
A. CENTRAL TECHNICAL INSTITUTE, WATERFORD; COOKERY CLASS.



B. CLASS IN PRACTICAL MATHEMATICS AND MECHANICS, SUMMER COURSES OF INSTRUCTION FOR TEACHERS.

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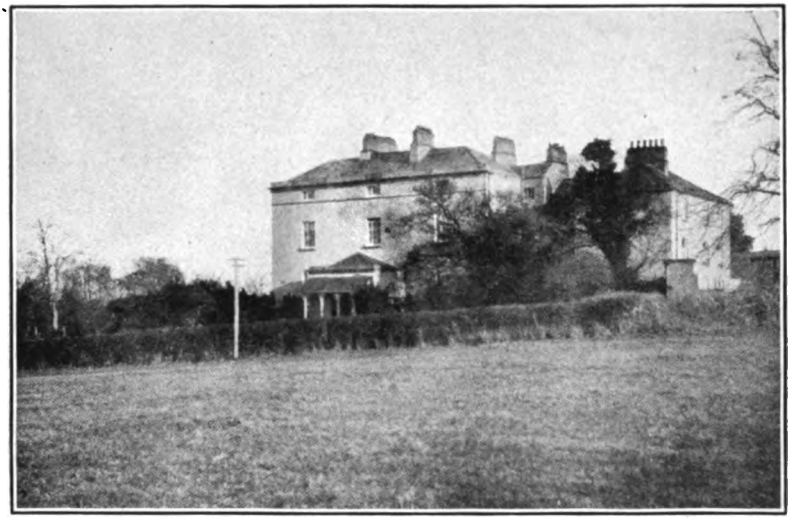

A. IRISH TRAINING SCHOOL OF DOMESTIC ECONOMY, KILMACUD, NEAR DUBLIN.

B. IRISH TRAINING SCHOOL OF DOMESTIC ECONOMY; ONE OF THE KITCHENS.

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geological survey of Ireland. By far the larger part is expended for agricultural purposes.

AGRICULTURAL INSTRUCTION IN COLLEGES AND SCHOOLS.[1]

In the following pages is given a brief description of the principal types of agricultural schools, both for males and females.

For men, the most advanced school is the Royal College of Science, an institution with four-year courses similar to those of the standard State colleges of agriculture in the United States. Below this is the Albert Agricultural College, a farm-practice school giving a one-year course; and below this several agricultural "stations" and schools, in reality farm apprenticeship institutions. Lower still are the winter agricultural classes described in a later section of this bulletin.

For women, there are the Munster Institute, the Ulster Dairy Institute, the Schools of Rural Domestic Science, and the itinerant butter-making and poultry classes. The itinerant classes are described under a later section on itinerant instruction in agriculture.

The work of these schools is arranged so that a student may progress directly from one to the next. Each, however, is complete as far as it goes, to provide for students not going on to higher instruction. As all of the institutions, both for males and females, are under the immediate direction of the department, such correlation is very easily arranged.

A large number of scholarships are awarded annually to all the schools, except the itinerant classes, for which none are needed. In awarding scholarships to the farm-apprentice schools, preference is given to boys who have shown proficiency in the winter agricultural classes. In awarding scholarships to the Albert Agricultural College those who were the most satisfactory apprentices in the apprentice schools have the first claim, and in awarding scholarships to the Royal College preference is given to the graduates of the course at the Albert Agricultural College. A similar recognition in awarding scholarships exists in the various agricultural schools for girls.

Royal College of Science, Dublin.—This institution is located in Dublin, in new buildings erected especially for it and equipped for three departments—agriculture, applied chemistry, and engineering. In its work it corresponds somewhat to the State colleges of agri-

[1] The representative of the Bureau of Education visited Ireland in 1914. This report was prepared during 1915, and the data used were the latest available at that time, covering the school year 1913–14.

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culture and mechanic arts in the United States. The course is four years in length. There were 133 students in attendance in 1913–14, of whom 48 were agricultural students, 20 science students, and 16 prospective science teachers who were taking some agricultural training. In addition to the 133 regular students, there were 397 others who attended special courses of instruction organized in the college during the summer.

The principal function of the agricultural department of the Royal College is the training of teachers of agriculture and of county instructors to carry out the programs of the department. Seven of the nine graduates in June, 1914, obtained employment in connection with the department's educational work. Of the 96 graduates of the agricultural courses of the college up to the close of the 1913–14 session, 39 are engaged as county instructors in agriculture, 15 as teachers at agricultural schools and stations, and 15 on the department's central staff.

Admission to the Royal College is by examination, candidates 18 to 30 years of age being eligible. The entrance requirements in academic subjects are very similar to those of the standard American college, but somewhat lower. Each applicant for admission to the agricultural courses must have had substantial experience in practical work in connection with either farming, gardening, the management of woodlands, or dairying and creamery management. This requirement is rigidly enforced. Free scholarships are awarded to a certain number of students specializing in agriculture, horticulture, forestry, and creamery management upon competitive examinations. Each scholarship includes railroad fare to and from Dublin each session, board and room at one of the department's institutions, tuition, and a small grant to cover the cost of books and apparatus. Scholarships are awarded for one year, but are renewed if the student's work is satisfactory. All of the 48 students in the 1913–14 sessions were holders of scholarships.

In the agricultural department there are seven instructors, one in each of the following subjects: Agriculture, agricultural biology, agricultural chemistry, forestry, botany, geology and mineralogy, and zoology. The exercises consist largely of classroom and laboratory work. The farm of the Albert Agricultural College, which is located at Glasnevin, on the outskirts of the city of Dublin, and is easily reached by street car, is used for observation and demonstration. The majority of the agricultural students at the Royal College have already attended the Albert Agricultural College and completed the course given by the institution, so that they are familiar with the experiments and demonstrations conducted at Glasnevin and are familiar also with farm practices as carried out by the college.

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Albert Agricultural College, Glasnevin.—The college is located on a farm of 180 acres at Glasnevin, a suburb of Dublin, and is equipped with classrooms, lecture rooms, and laboratories, a residence for about 60 students, farm buildings, and sufficient stock for instructional purposes. Two distinct courses are given—an agricultural course and a horticultural course. The agricultural course is intended for young men who desire a technical and practical knowledge of agriculture to fit them for farming, for creamery management, or for any other occupation which requires technical training in the sciences underlying agriculture or for entrance to the Royal College of Science. It includes instruction in agriculture in the classroom, farm yard, and fields, supplemented by lessons in dairying, horticulture, poultry management, beekeeping, and veterinary hygiene. The course includes instruction in the elements of physics, chemistry, botany, zoology, entomology, bookkeeping, surveying, literature, mathematics, and drawing. It requires one school year of 10 months to complete. The 1913–14 session began on October 14, 1913, and ended August 14, 1914. A diploma is awarded upon the completion of the course, together with certain prizes for acquiring a high standard of skill in practical farm work. The cost of attending the agricultural course in the school is £15 ($72.75) for students whose parents or guardians derive their means of living mainly from farming in Ireland. This amount covers tuition, board, residence, laundry, and ordinary medical attendance for the entire session. For other students the charge is £50 ($242.50).

Admission to the regular agricultural course of the college is conditional upon passing entrance examinations and furnishing evidence of good character and health. Candidates must be at least 17 years of age and not over 30. They are examined in English, arithmetic, algebra to simple equations, and agriculture. Both written and oral examinations are set on agriculture, the questions being framed with a view to testing information acquired by practical experience in farm work.

During the 1913–14 session there were 27 students enrolled in agriculture. Of these, 8 obtained scholarships in agriculture tenable at the Royal College of Science for the session beginning in the fall of 1914.

The horticultural course is for men of four or five years' experience in fruit growing or gardening. Candidates for admission must be from 20 to 30 years of age; they must pass examinations in elementary English and arithmetic, and in practical fruit growing and gardening. The course extends over a year, beginning the middle of October and ending the first of the following October. Students are furnished lodging and allowance to cover board and incidental expenses. The course consists of a large amount of practical work in

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the gardens, with supplementary classroom instruction. During the 1913–14 session nine students were enrolled; at the close of the session three of these found employment as county instructors, one qualified for employment in connection with the department's fruit-plat work, and three were retained for a second year's course. Thirty-four men trained in this course are now employed by the department in connection with horticultural schemes, either under local authorities or immediately under the department.

An opportunity is also given at the college for a limited number of young men to secure positions as farm apprentices through a period of training of 12 months. These apprentices must keep such hours as the work of the farm, including the care of the live stock, necessitates. They are required to attend special classes formed for them evenings and at other times when farm work is not pressing. They are furnished board and lodging and on the conclusion of their apprenticeship are paid a bonus at the rate of £1 per month, provided their work has been satisfactory. The general plan of instruction is similar to that of the agricultural station schools described later.

The teaching staff of the Albert College is composed of the principal, an agriculturist, and one instructor in each of the following: Chemistry, botany, zoology, veterinary hygiene, horticulture, dairying, poultry keeping, bee keeping, and woodwork. A drill instructor gives physical training twice a week, and clergy of the various denominations visit the college to hold weekly classes in religious instruction.

Agricultural station schools.—Three "Agricultural station schools" have been established. One, located at Athenry, in County Galway, in the west central part of Ireland, is an apprenticeship school on a farm of 600 acres, with modern farm buildings and equipment for diversified farming, including dairying, beef and mutton production, and fruit growing. On the farm is a residence for the principal of the school, who is also superintendent, and a dormitory building accommodating 30 boys. In this building are a dining room, two or three classrooms, and a laboratory.

The farm is conducted as nearly as possible on commercial lines as a model farm and as a demonstration not only for the boys in attendance, but for the farmers from the surrounding country who attend various institutes held during the year. A limited number of field experiments in fertilizers, tillage, etc., are being conducted, as well as feeding and breeding experiments with cattle, sheep, swine, and horses.

At the station each year about 30 young men who intend to become farmers are admitted for one year of practical training in farming, with supplementary instruction in the principles of the sciences un-

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derlying ordinary farm practice. The technical instruction is given in the class room on part of each working-day during the winter, and during the spring and summer at times when the weather is unsuitable for outdoor work.

The course extends from October 15 to October 15. The boys engage in the regular farm occupations from 9 to 10 hours a day and attend classroom instruction from one to three hours, depending upon the season. During the year, they are required to assist in all the various farm operations, and at the completion of the year are familiar with the ordinary farm practices as carried out on a scientifically conducted model farm. Practically no other laborers are employed on the farm, except the apprentices and one or two who may be retained for a second year to act as foremen over squads of workers.

Two salaried instructors are employed, the superintendent and one assistant, a graduate of the Royal College of Science, who conducts most of the classroom exercises. The superintendent, in addition to the general management of the farm and school, gives personal oversight and instruction to the farm apprentices in the field, barn, or dairy.

There were 26 apprentices during the 1913-14 session. Applicants for admission must be over 17 years of age and must give assurance that they intend to follow farming in Ireland as an occupation. Preference is given to boys and men who have attended a course of instruction in one of the county winter agricultural classes. They must possess good character and health, and have a good elementary school education. At the completion of the year, those whose work has been satisfactory receive small payments proportionate to the value of their work, the maximum being the equivalent of about $25.

The *Clonakilty Station*, at Clonakilty, in County Cork, is very similar to the Athenry Station. The classroom work, however, includes several subjects in addition to technical agriculture not given at the Athenry School: English, arithmetic, surveying, and bookkeeping. The session is 10 months (October 15 to August 15), instead of 12 as at Athenry.

The *Ballyhaise Station*, County Cavan, conducts a system of farm apprenticeship similar to those at Athenry and Clonakilty, and in addition a creamery course for men intending to become creamery managers. The work for the farm apprentices is divided into two terms, a winter term of six months and a summer term of four months. Apprentices whose services are needed at home during the summer are accepted for the winter term. During this winter term a large part of the work is in the classroom. In the summer term it is nearly all practical farm work.

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The creamery course is five months in length, beginning each year about the middle of October, and consists of practical work in butter-making, creamery management, etc., with classroom work in dairy bacteriology, dairy technology, dairy engineering, and business methods. At the close of the course at Ballyhaise, a limited number of the best students are placed in commercial creameries for the summer for further practical work and are allowed 10 shillings ($2.43) a week for living expenses.

There were 88 pupils in attendance at these three stations during the 1913–14 session—76 farm apprentices and 12 apprentices in creamery management. Of the 76 farm apprentices, 45 had taken a course of instruction in winter agricultural classes before entering the station; 66 were sons of farmers whose holdings did not exceed $200, and only 2 were not sons of farmers.

Agricultural schools.—There are three agricultural schools for boys, located at Antrim, Strabane, and Mountbellew. The *Antrim Agricultural School*, in the north of Ireland, is intended principally for students from County Antrim and from County Down. It has accommodations for 25 resident pupils. The school is under the general control of the Antrim County committee of agriculture and is situated 1 mile from the town of Antrim. The farm contains 187 acres, of which 130 are tillable. There is also a large garden and orchard, in which instruction in horticulture is given. The farm is managed by an experienced agriculturist, under whose direction the students are required, as at the agricultural stations, to take part in the work of the fields and of the farmyard, whether in connection with seasonable operations or permanent improvements. It is the aim of the school to give the students technical knowledge of agriculture, horticulture, and also farm practice to fit them for practical farming.

The school course is 10 months in length, running from the middle of October to the middle of August. Applicants for admission must not be less than 17 years of age, must declare their intention to become farmers in Ireland, and must produce evidence of a sure prospect of obtaining a farm of their own or bona fide occupation on a farm. In the general arrangements the school is very similar to the agricultural station schools.

The Mountbellew Agricultural College is under the management of the Order of Franciscan Brothers and is located in County Galway. It is well equipped with laboratories for all modern requirements, a model farmyard, and farms and gardens. Students are required to take part in all farm operations, as in the other schools described, but devote more time to classroom work. The course of instruction includes (1) practical farming, which, in addition to assisting in the regular farm operations, includes the keeping of a

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farm account of outlays and incomes for farm operations, livestock, and dairying, as if the college farm were the student's home; (2) a course in physics, chemistry, and biology with particular relation to farming; (3) farm calculations, surveying of land, values of manures and feeding stuffs; (4) study of seeds, grasses, weeds, and pasture; (5) use of natural and artificial manures; (6) management of live stock, winter dairying; (7) veterinary hygiene; (8) fruit growing; (9) bee keeping; (10) farm accounting.

Applicants for admission must be 16 years of age and over and must pass examinations in all of the elementary school subjects. Many of the students are scholarship students who have taken winter agricultural courses in the county and have been awarded scholarships by the county committee of agriculture. There were 27 students in 1913–14.

In addition to conducting the farm and teaching agriculture to the resident students, the college carries on outside activities in assisting farmers in improving their methods. Members of the college staff give lectures to farmers at the college on all phases of agricultural work. In the year 1913 they held 20 such meetings. During the year 56 neighboring farmers conducted manurial experiments on their own farms with roots and potatoes, and others carried out a series of simple cattle-feeding experiments, all under the supervision of the college agriculturists.

The *Northwest Agricultural School*, located at Strabane, in northwest Ireland, opened for pupils for the first time on the 27th of January, 1914, and gave a six weeks course for young men actually engaged in farm work. The course included agriculture, veterinary science, and practical gardening.

This course was followed by three residential courses for young women, which commenced on the 24th of March, 12th of May, and 30th of June, respectively, and lasted six weeks. Instruction in poultry keeping, cookery, sewing, and housewifery was provided. This school is intended primarily for students from the counties of Donegal, Londonderry, and Tyrone. Twenty-seven young men attended the winter school, and 54 young women took the work in the three residential courses. Residence for all of these students was provided at the school. Practically all were holders of scholarships awarded by county committees on agriculture from the counties from which they came, entitling them to free instruction, board, and residence.

The school buildings were erected and equipped by the Department of Agriculture and Technical Instruction, by whom the staff of instructors are appointed and paid. The management is in the hands of the department, aided by an advisory committee appointed by the committees of agriculture of the three counties named above.

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Agricultural schools for girls.—Two of these, the Munster Institute and the Ulster Dairy School, are central institutes managed by the department and open to resident pupils only. There are nine other schools somewhat similar, but of lower grade, known as schools of rural domestic economy, working under local private management, but aided and supervised by the department.

The *Munster Institute* is located in County Cork, in the south of Ireland, on a farm a mile outside of the City of Cork. Four terms are held during each year, with approximately 56 students, the number the school has accommodation for, in attendance each term. The objects of the school are as follows: (1) To provide instruction for girls who wish to learn improved methods in regard to their own work in the dairy, poultry yard, etc.; (2) to enable suitable pupils to qualify for work as dairy maids; (3) to provide special instruction to suitable candidates for teachers in dairying and poultry either as county itinerant instructors or instructors in agricultural schools. The full course in preparation for teaching, either as county itinerant instructors or in agricultural schools, occupies six or seven terms. During 1913–14, 17 pupils completed the course for itinerant instructorships for teachers, 12 of whom found employment in connection with department's work. The total number of graduates of the institute so employed now amounts to 63, of whom 27 act as county instructors in both dairy and poultry keeping, 5 as county instructors in dairying, 8 as county instructors in poultry keeping, and 23 as teachers in agricultural schools.

Each of the four terms is of 11 weeks' duration, commencing, respectively, in January, April, July, and October of each year. Young women between the ages of 17 and 35 are admitted upon producing certificates of good health and character and evidence that they have received such general education as will enable them to follow the course to good advantage. Applicants who have attended local classes in the various counties in butter making and poultry keeping and whose attendance and progress at such classes have been satisfactory are given preference in regard to admission to the institute.

Students are eligible for admission to a second consecutive term if they attain the required standard at the examination at the conclusion of their first term. Students who have attended two terms and desire to qualify for teaching or for itinerant instructorships are admitted to a third term, provided they attain the required standard at the end of the second term and satisfy the department as to their general fitness for the work. If their progress during the third term is satisfactory, they may be admitted to further training. Attendance at the institute during at least six terms (1½ years) is necessary

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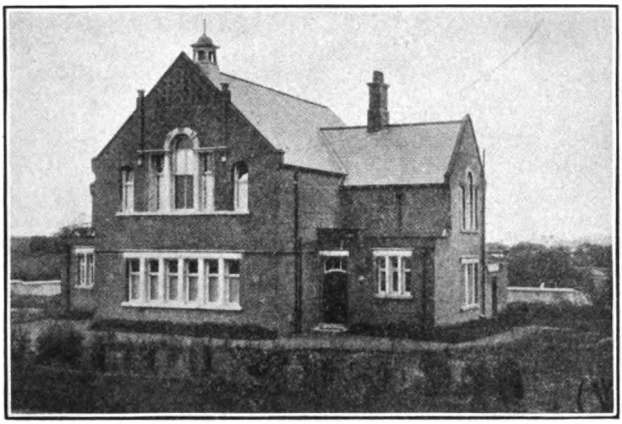
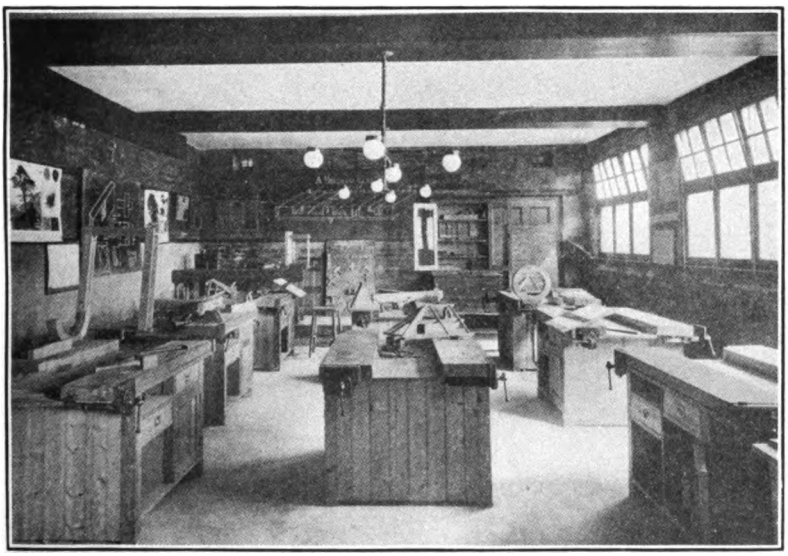


A. TECHNICAL SCHOOL, BALLYMONEY.



B. WORKSHOP IN THE MUNICIPAL TECHNICAL SCHOOL, BANGOR, COUNTY DOWN.

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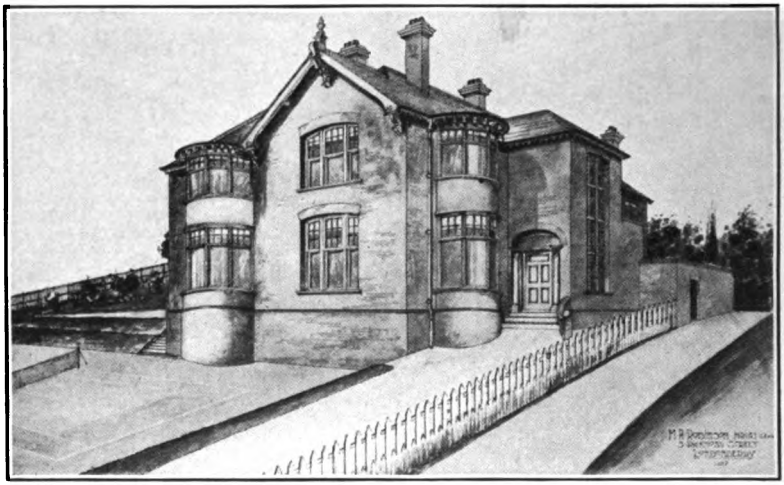

A. NORTHLANDS SCHOOL OF HOUSEWIFERY, LONDONDERRY.

B. KILLARNEY SCHOOL OF HOUSEWIFERY; KITCHEN.

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to qualify for positions to teach in the department schools or for county instructorships.

Girls who desire to become dairymaids in creameries and who have attended two terms at the institute and attained a satisfactory standing may be admitted to a third term, on the completion of which they are placed in selected creameries in Ireland for practical work as dairymaids. Students so selected are allowed 10 shillings per week for subsistence and free instruction at the creamery for a period of 20 weeks.

The school is located on a farm with model buildings and sufficient stock to produce milk necessary for instruction purposes in butter making, cheese making, etc. The farm contains also a poultry plant, with flocks of the different breeds of hens for use in poultry instruction. All of the work in caring for the stock, feeding, milking, etc., is done by the girls. On the farm is a large building used as a residence for the instructors and students, and containing classrooms and laboratories for instruction in dairying and the household arts.

The course of instruction includes (1) the practice of dairy work, the treatment of milk and the making of butter on a large and on a small scale with the most modern machinery and implements, as well as with the appliances generally used in farm dairies; (2) instruction and practice in the feeding and management of cows, calves, and pigs; in the keeping of small gardens and in the care of bees; (3) instruction and practice in poultry work; breeds and suitability for different purposes in different localities; housing, feeding, and management; grading and packing of eggs; hatching and rearing of chickens; fattening, killing, plucking, and preparing for market; trap-nesting and keeping of laying records; (4) instruction and practice in domestic work, embracing plain cookery, plain needlework, laundry work, and home nursing.

The *Ulster Dairy School* is located at Cookstown, County Tyrone, in the north of Ireland, on an extensive tillage and dairy farm. In terms of admission and course of study the school is similar to the Munster Institute, except that no provision is made for advanced students. Those who desire to qualify for the work of teaching in agricultural schools or as county itinerant instructors are sent to the Munster Institute for their final courses.

The four terms held at the school during the year 1913 were attended by 191 pupils, or an average of 48 each term. One pupil passed the final examinations for a teachership in an agricultural school, two were transferred to the Munster Institute for further training as county instructor, and two were given facilities for receiving special training at commercial creameries as dairymaids.

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Schools of rural domestic economy, as has been previously stated, are nine in number. Day and resident pupils are received at six schools, day pupils only at two, and resident pupils only at one. The course of instruction is framed with a view of teaching girls of the farming class of 15 years of age and over improved methods of work which they can apply in their own homes, but the training is also availed of by girls whose purpose is to qualify themselves for positions as dairymaids, cooks, housekeepers, etc. The full course for resident pupils consists of two sessions covering a year's training. Promising pupils are eligible for admission to further training at the Munster Institute and the Ulster Institute, and may ultimately qualify for instructorships or for teaching in agricultural schools or as creamery dairymaids. The schools are located at Westport, Claremorris, and Swinford, in County Mayo; at Portumna and Clifden, in County Galway; Killeshandra, County Cavan; Ramsgrange, County Wexford; Loughglynn, County Roscommon; and Benada, County Sligo. The total attendance at these nine schools for 1913–14 was 358 day pupils and 274 resident pupils, making a total of 632 girls. The first of the schools, three in number, were opened in 1905 with an enrollment of 268.

The *Loughglynn School* is situated in one of the "congested" districts. It was established in order to provide women and girls of the neighborhood with practical training to enable them to increase the comfort of their homes and improve the conditions under which they live. The training aims to make them efficient rural housewives and to counteract the tendency to despise farm work and to abandon rural life. It does not aim at the preparation of girls for domestic service. The course of instruction includes (1) dairying, making cheese and butter, and caring for cows and calves; (2) poultry keeping, the rearing and management of hens, ducks, turkeys, and geese; (3) pig rearing and feeding and general management of pigs; (4) gardening, the cultivation of such vegetables, fruits, and flowers as may be grown in the cottage garden; (5) beekeeping; (6) sewing, knitting, and mending, including the making and repairing of garments of every kind worn in the districts; (7) washing and ironing; (8) cooking—especially the preparation with inexpensive and simple utensils of those dishes for which the materials are furnished by the products of the farm and the garden; (9) cleaning and decorating the home; (10) home industries which can be carried on in time not required for the farm or the household, such as lace making, embroidery, carpet weaving, and the making of artificial flowers. Pupils must be more than 14 years of age and live sufficiently near the school to permit of their returning home daily. There are no fees. In order to give the lessons direct practical application in the home life of the people, pupils bring with them to the school as far as

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possible the material needed for the work—the cream or milk for dairy practice, the poultry to be killed or dressed, the materials for the dishes to be cooked, the cloth for new garments, the clothing to be repaired, washed, or ironed. The pupils take home with them in the evening the products of their day's labor, which serve as object lessons to those who can not be present at the classes. The school is equipped with stock, including dairy cattle, pigs, and poultry for instructional purposes.

Housewives and others in the neighborhood who are not in a position to attend the classes daily may avail themselves of instruction in any subject and come to the school for advice whenever they desire it, in connection with the home work. The teachers visit regularly the homes of the persons who desire their guidance in the difficulties of household management and visit regularly also the homes of their pupils to see how they are carrying out the instructions received at the school. They also distribute among their pupils settings of eggs of approved breeds, garden seeds, etc. During the potato-spraying season they superintend the use of spraying machines supplied to the school by the department for lending to farmers.

The Loughglynn School is located in Roscommon County, in west central Ireland, about 6 miles from the village of Castlerea, the nearest point to the railroad. It is located in a manor house purchased with a farm of 75 acres by an order of nuns, the Franciscan Missionaries of Mary, from the congested districts board. It was a part of a great estate which the board seized and divided into small holdings under the land-purchase act of 1899.[1] All of the instruction in the school is given by nuns of this order. The school is open to all who wish to enter, however, without restriction as to religious denomination.

In addition to these nine schools, there are a few residential schools of domestic science in Ireland in which instruction in butter making and poultry keeping is given, and for which special aid is provided by the department. Among these may be mentioned the schools of domestic training at Dunmanway, County Cork; Dundrum, County Tipperary; and Drishane, County Cork.

ITINERANT INSTRUCTION IN AGRICULTURE THROUGH COUNTY INSTRUCTORS OR AGRICULTURAL AGENTS.

In each county in Ireland there is a "county committee on agriculture" or a "county committee on agriculture and technical instruction," which has charge of various agricultural development schemes or projects supported by county funds, and of schemes which have

[1] See appendix.

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the approval of the department and are supported in part by department funds. Among these is the department's plan of instruction in agriculture, which requires the employment in each county of an agricultural instructor. Each person employed must be approved by the department and becomes its representative in the discharge of many of its functions.

The department is interested in several other projects—the schemes of instruction in poultry-keeping, butter-making, horticulture and bee-keeping, and for general instruction in farming in the congested districts. This last is administered by the department directly, the others by the county committees on agriculture, with the department's cooperation. For each of these the employment of special instructors is required. The instructors in poultry and butter-making are all women. The activities of the instructors are similar to those of the agricultural instructors given below. Special reference to each scheme is made later.

The department's plan of instruction in agriculture has been in operation each year since 1907–8 by every county committee of agriculture. During the year 1913–14, 45 instructors (dairy and poultry instructors not included) were employed under the scheme. These were appointed as follows: 5 in County Cork, an unusually large county; 2 in each of 8 counties; and 1 in each of the remaining 24 counties. With 5 exceptions, all these instructors had been trained in the agricultural department of the Royal College of Science.

The duties of the instructors embrace—

(1) Teaching winter agricultural classes and giving lectures on agricultural subjects at different centers;

(2) Carrying out of important field and live stock experiments, demonstrations, etc.;

(3) Affording individual advice and instruction, either by means of visits to farms or by correspondence;

(4) Acting as official samplers under the fertilizers and feeding stuffs acts and the weeds and agricultural seeds act;

(5) Reporting on applications for the consent of the department, under section 32 of the Irish land act, 1909, to the felling of trees on holdings affected by that act;

(6) Acting as judges under the department's scheme of prizes for cottages and small farms; and

(7) Disseminating information generally regarding the department's agricultural schemes, and the department's institutions for the training of young men in farming, etc.

These duties bring the instructors into touch with all sections of the agricultural community and enable them to supply the department with valuable information on matters concerning the agricultural interests of the country.

Some idea of the activities of the county instructors may be gathered from the following data. In 1913-14, in addition to teaching

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the 1,281 students in 84 winter agricultural classes, mentioned later, instructors delivered 750 lectures at 518 centers, with a total attendance of 37,250 persons. The number of visits paid to farmers was 19,000, approximately 422 visits to each instructor. The instructors laid down 787 field experiments and 2,132 demonstration plats and also supervised the carrying out of 90 experiments in the feeding of live stock. The experiments included principally manurial experiments and experiments with varieties of seed. The demonstration plats are intended to bring in a practical manner, to the notice of farmers, results obtained by using various manures, varieties of seeds, or methods of cultivation which experiments have shown to be the most profitable. The plats are situated, as a rule, in fields adjacent to public roads and are conspicuously labeled.

An annual general conference of the county instructors and of the department's agricultural staff is held at the Royal College of Science, and lasts four or five days. At this conference a series of lectures by specialists is arranged, and an opportunity is given for discussion of the problems met by each of the field workers. The department arranges annually an educational tour for a limited number of the instructors, extending over a fortnight, in which they are sent to England, Scotland, Wales, or to the Continent to observe the work of other men occupied in positions similar to their own, as well as to observe agricultural methods in the countries visited.

Agricultural schemes for congested districts.—In addition to the county instructors, the department employs 4 agricultural overseers, aided by 52 assistants, in connection with various schemes of agricultural instruction in the congested districts. These schemes are administered by the department directly and are supplementary to the ordinary agricultural schemes carried out by the county committees on agriculture. The work of the four overseers and their assistants is confined to the newly settled regions, instructing settlers how to perform ordinary farm operations, assisting them in securing implements, and advising them relative to conducting their farms. In addition to the 52 assistant overseers, special demonstrators in potato spraying are employed during the summer months, 11 being employed during the summer of 1914. The overseers also conduct demonstration plats to illustrate methods of cultivation, the advantages of good seeds, and suitable manures. The sites for the plats are provided by the farmers, the department supplying the seeds and manures at about one-half cost on condition that they agree to carry out the directions of the overseers in regard to cultivation. In selecting plats, overseers select as far as possible sites that may readily come under the observation of farmers in the district, land near public roads being generally chosen if otherwise

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suitable. The plats are labeled conspicuously, so that passers-by may easily grasp the lessons intended to be conveyed. In 1906–7, the year when this work began, there were nearly 9,000 of these demonstration plats; in 1913–14 there were over 12,000.

The representative of the Bureau of Education visited a newly settled region near Castlerea, in county Roscommon, and saw at first hand the work of one of the local agricultural overseers who had under his supervision about 200 holdings of 40 acres each. Most of the land occupied by these holdings was formerly pasturage. Now it is being settled to a large extent. A description of the activities of this particular overseer is given in the Report of the Royal Canadian Commission on Industrial Training and Technical Education in the following words:

> The local agricultural overseer spends his whole time among about 150 holders, there being about 50 holdings uncompleted at the time of the visit of the commission. The overseer helps them to begin the use of new implements and machines, such as chilled plows, cultivators, mowers, etc. The "colonists" were also given some assistance by the department, to enable them to obtain such machinery. When a new machine was to be started or put to use, a number of the neighboring farmers would come to one place to learn all they could. When there was no such work to do, the overseer would visit about 10 farms daily, offering counsel, answering questions, and helping the people to understand the difficulties of their occupation, and how to meet them successfully. This overseer had attended one winter agricultural course of 16 weeks, and formerly managed a large farm for some four years in the county of Cork. He began his work as overseer at a salary of £65 a year, and is now receiving the maximum for that class, which is £100 a year. The overseers are not used by the department to conduct winter classes, to hold meetings, or to give any other instruction than that imparted to the farmers on their own places.

Poultry-keeping and butter-making schemes.—The department's scheme of instruction in poultry keeping has been in operation in every county since 1909. In 1909, the first year, 23 instructors were employed; 39 instructors were employed in 1913–14. Of the 39 instructors, 23 act in the dual capacity of instructors in poultry keeping and butter making.

The instructor in poultry helps to establish poultry stations for direct improvement in the quality of poultry stock, and gives instruction through special poultry classes and by personal visits at the houses of poultry keepers. There are now 1,103 stations for the distribution of settings of hen, duck, and goose eggs, and 779 turkey stations. The total number of classes held was 139, with 1,800 students in attendance.

The butter-making scheme was in operation in 1913–14 in 29 counties, and 36 instructors were employed, of whom 23, as already stated, also gave instruction in poultry keeping. The most important work of the instructor consists in conducting practical classes in butter making at selected centers. These classes are held for a

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period of from two to four weeks, with daily instruction of not less than two hours. All pupils take part in the practical work. During the year (1913–14) 195 classes were held, with 2,623 pupils in daily attendance. The instructors, when not engaged in class work, visit dairies and give demonstrations in the making of butter by means of the equipment actually in use at the places visited. During the year, 6,754 demonstrations were held and 110 lectures were given, with an attendance of nearly 2,000 persons.

Horticulture and beekeeping schemes.—In the 33 counties 41 instructors were employed, 35 of whom gave instruction in both horticulture and beekeeping, 3 in horticulture alone, and 3 in beekeeping alone. The duties of the instructors consist principally of visiting and giving instruction at gardens and cottage plats. Wherever possible, demonstrations were arranged and conducted for the benefit of local residents, 360 being conducted during the season.

Summary.—During 1913–14 there were employed 138 persons by county committees on agriculture in connection with the four principal schemes of itinerant instruction; 45 county instructors in agriculture were employed, 41 in horticulture and beekeeping, 23 in poultry and butter making, 16 in poultry, and 13 in butter making. In addition, 2 tillage demonstrators were employed by one county committee; 3 instructors in home bacon curing, 1 in each of three counties; 2 plowing demonstrators, 1 in each of two counties; and 1 agricultural overseer for congested districts in one county. This is a total of 146 separate persons employed for agricultural instruction by the 33 county committees in cooperation with the department.

In connection with itinerant instruction in agriculture, administered directly by the department, there were employed 4 overseers, with 52 assistants, giving instruction to small farmers in the congested districts of the west; 20 instructors in flax growing in districts where flax is the staple crop; and 8 instructors in creamery management to assist in the improvement of the management of the creameries.

RURAL EXTENSION SCHOOLS IN AGRICULTURE, POULTRY, AND BUTTER MAKING.

The "rural extension schools" are itinerant schools under the direction of the county committees on agriculture, which decide upon the number and the locations and appoint local committees to secure suitable rooms and make the other necessary local arrangements. They are supported in part by county funds and in part by department funds. Whatever equipment is needed in the schools is purchased by the county committee and is carried from one location to

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the next. Very little is needed for the agricultural classes or for the poultry classes. The regular instruction is given by the county agriculturalists and by the county instructors in butter making and in poultry keeping. The classes are held in central buildings provided by local committees and approved by the county committee. It may be an unused dwelling, a town hall, courthouse, or any suitable place.

Winter agricultural classes.—Winter agricultural classes were operated in 1913–14 in 84 centers in 29 counties, with a total enrollment of 1,281. This number does not include the similar classes in poultry and butter making. Each class is held not more than four nor less than two days weekly during a period of from 15 to 20 weeks, between the middle of October and the middle of March. Classes meet both morning and afternoon and are taught by county itinerant instructors in agriculture, assisted where necessary by special teachers. This plan has been in operation since 1909–10, when 70 classes in 26 counties were held.

For admission to the classes, candidates must be 16 years of age and engaged in farming work in the county. No fee is charged for the course, but students must provide their own supplies. Those who reside at a distance greater than 3 miles from the class center are allowed their railway expenses. Students whose attendance and progress have been satisfactory receive special preference in connection with the Department of Agriculture apprenticeships at the agricultural stations and agricultural schools.

The course of instruction includes soils, tillages, manures, seeds, grasses, weeds, farm pests, treatment of pasture, cropping, management of live stock, winter dairying, valuation of manures and feeding stuffs, simple farm-account keeping and farm calculations, mensuration, elementary chain surveying, and elementary science explanatory to the principles underlying ordinary farm practice. So far as possible, the lessons are illustrated by practical demonstration.

Winter butter making and poultry keeping classes.—The classes are separate and are either in butter making or in poultry keeping. They are for girls only. Teaching these classes is a part of the work of the county instructors in these subjects. During the year 1913–14 the 36 butter-making instructors previously mentioned held 195 classes, the 39 poultry instructors 139 classes. The classes met in all cases two hours a day for five days each week for from two to four weeks. The work is all practical. In the butter-making schools a churn is provided for every two girls. In the poultry-keeping schools, girls bring their own poultry for lessons in killing, dressing, and preparing for market. The poultry classes are held in com-

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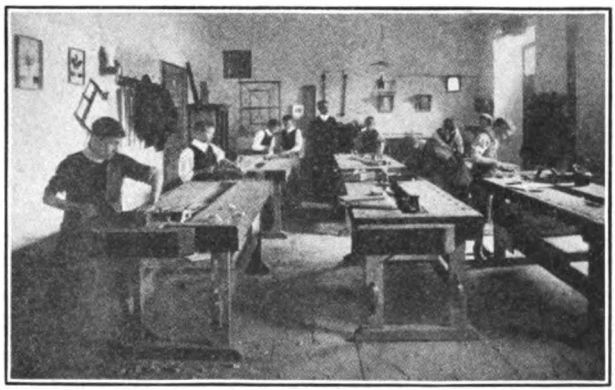
A. MOUNTMELLICK, SHOWING THE COTTAGE (MARKED X) FITTED AS PERMANENT HOME FOR ITINERANT SCHOOLS OF COOKING AND HOUSEHOLD ARTS.



B. COUNTY ITINERANT INSTRUCTION; MANUAL INSTRUCTION IN WOODWORK.

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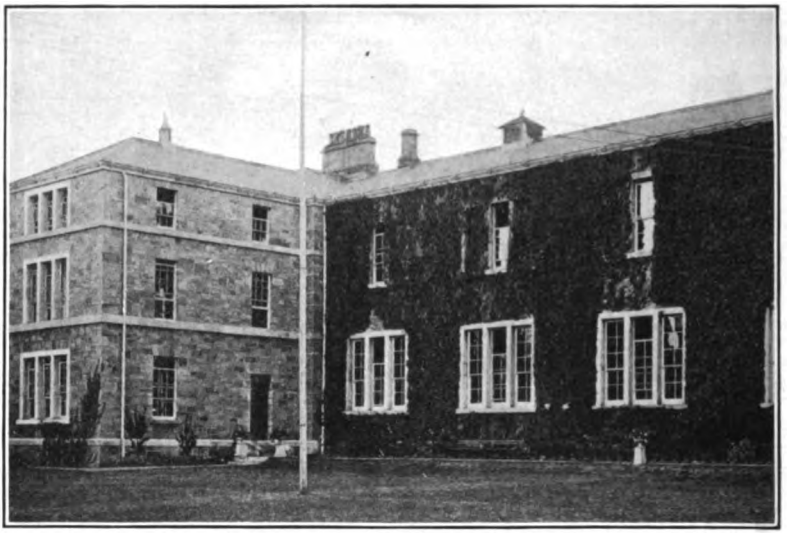

A. ADMINISTRATION BUILDING, ALBERT AGRICULTURAL COLLEGE, GLASNEVIN, NEAR DUBLIN.

B. DRESSMAKING CLASS, URSULINE CONVENT, SLIGO.

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munities where poultry is available for demonstration purposes and study.

In the butter-making schools the instructor gives a lesson the first day on butter making, followed by a demonstration. Each following day the two-hour period is devoted to butter making by the girls themselves, except a short period each day during which the instructor lectures on such subjects as sanitary housing of dairy cattle, milking, treatment of milk, construction of dairy, cream separation, ripening, churning, milk records, and calf rearing. The pupils take notes, which the instructor corrects. An examination is held at the close of the session.

The equipment for a class of 12 girls costs approximately $250. It includes 6 end-over-end churns, 6 butterworkers, and 6 sets of small equipment, such as measures, skimmers, scoops, sieves, brushes, thermometers, buckets, cream pans, etc., and one pair of scales with weights, Gerber butter-fat tester, hand separator, portable boiler, lactometer, butter trough, 20-gallon "railroad" can, etc.

In the poultry-keeping classes lectures and demonstrations are given on breeds and breeding, rearing and management, housing, chicken rearing, feeding, winter egg production, selecting and testing eggs, marketing and packing eggs, preservation of eggs, preparation and marketing table poultry, and poultry diseases. Pupils take part in practical work in packing and testing eggs, making a hatching nest and setting the hen, fattening, killing, plucking, and preparing for market, use of incubator and brooder.

The equipment for the course costs approximately $65. It includes tables, trussing boards, knives, folding coop for sick hens, buckets, brushes, plucking baskets, spring-hook weighing machine, egg tester, toe punch for marking chickens, setting nest, incubator, brooder, dissecting instruments, etc.

Girls who have satisfactorily completed either the butter-making or poultry-keeping classes are given preference in awarding scholarships to the Munster or Ulster Dairy Institute.

Itinerant schools taught by county instructors employed by county committees on agriculture and the department, 1913–14.

	Agriculture.	Horticulture and bee keeping.	Poultry.	Butter making.
Number of instructors	45	51	[1] 39	[1] 36
Miscellaneous lectures given	757	126	153	110
Number of short courses conducted	84	.....	139	195
Length of courses, in weeks	15 to 20	.....	2 to 4	2 to 4
Number of students	1,281	.....	1,801	1,881

[1] 23 of these are duplicates.

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RURAL EXTENSION SCHOOLS IN HOUSEHOLD ARTS, HOME INDUSTRIES, AND FARM CARPENTRY.

The division of technical instruction of the Department of Agriculture and Technical Instruction is cooperating with the division of agriculture in certain forms of technical training, both for men and women, to supplement the extension teaching in agriculture. The work for men is largely farm carpentry. The work for women is of two kinds—the teaching of industries which seek to provide for the home itself what the home needs, and those which may aid chiefly in increasing the family income. The first includes such activities as better housekeeping, and knitting, spinning, and sewing for the family; the second includes lace making, crochet making, sprigging, embroidery, shirt making, hand spinning, etc. The latter kind of work has been encouraged in the congested districts more than in other places on account of the difficulties of securing a satisfactory living without income from outside.

For rural districts as a whole the department desires to exert its influence to assist in providing for the home what the home needs rather than in increasing the family income through the manufacture of products for sale. Its attitude is guided by the following principle:

> The true conception of home industries amongst an agricultural population, namely, that they shall be the handmaid of agriculture and not its rival, the means of occupying agreeably and profitably in the home the time which can not be given to the cultivation of the soil. And by profitable occupation is meant not merely or simply the making of things which can be exchanged for money, but the making of things which would otherwise have to be bought with money. * * * It is well to emphasize this fact and to point out that home industries indiscriminately pursued, like other good things, have their dangers. They can lend themselves to two mischievous tendencies, among others: (1) Sweating in the home, a way of engaging all the members of the family to the very youngest in a feverish struggle to increase the scanty earnings of the industry, to the neglect of sanitation, of the education of the children, and of the general comfort and happiness of the home; (2) neglect of agriculture through the temptation to give more time to these industries than proper care of the farm justifies.[1]

The Irish Department of Technical Instruction has attempted to avoid the evils referred to by insisting that wherever money is given from public funds to schools in aid of home industries, it is on the condition that domestic economy shall also be taught.

The activities of this division have taken several forms: Affording free expert advice relative to the establishment of an industry and during its growth, the training of masters and foremen for the rural industries, and conducting rural extension schools in domestic economy, the home industries, and elementary farm carpentry.

[1] From the Report of the Recess Committee.

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The rural-extension schools are run cooperatively with the county committees on technical instruction. Instructors are employed by the county committees, with the approval of the department, which pays five-ninths of the salary of each. The county committees purchase the necessary equipment for instruction and this is transported from one school to the next. The county committees also make general arrangements for the itinerary of the instructors and decide where schools shall be held. Local communities desiring schools must take the initiative and make application to the county committee. The committees, as a rule, are able to grant only a fraction of these applications; however, they act favorably on as many as possible. In determining which to grant, they take into consideration an equitable distribution about the county, the number of people who desire to attend in each community, and similar factors.

The county committees require a local committee to be formed wherever schools have been awarded, the local committees being charged with the duties of finding buildings suitable for the classes and making all local arrangements. The building may be a vacant dwelling house, a schoolhouse, village hall, court room, or any other suitable place. Usually the building or room is rented, but in several instances buildings have been purchased as permanent quarters for these itinerant schools, being used at different times for the cooking school, the carpentry school, and the winter agricultural classes under the county instructor in agriculture. When the time comes for the school in one of the communities selected, the equipment is brought by the instructor from the last school, and with the help of the local committee is placed in the room provided and arranged for work. The equipment generally remains eight weeks in each location, and there are two classes each day for five days in the week, one from 4 to 6 in the afternoon, the other from 7 to 9 in the evening. To these classes are admitted persons beyond the school age who are engaged in farm or farmhouse work. If the afternoon classes are not too full, boys and girls over 14 years of age attending public schools are admitted. The standard classes are from 16 to 20 students; there are seldom more than 20 admitted. Each complete course includes approximately 40 lessons of two hours each, the larger part of the time being taken up with practical work.

The subjects of instruction in the schools for women are the ordinary household arts, including cookery, laundry work, home sewing, home nursing and hygiene, and various home industries. The cooking lessons consist of instruction and practice in preparing plain and ordinary dishes, and include such useful information as the management of the cook stove, choice and selection of foods, utilization of scraps of food, recipes for sick persons, etc. The course also includes simple instruction in hygiene and simple household accounts. The

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course in home sewing covers lessons in darning, mending, patching, etc., making patterns and cutting out, principally garments worn by children. The equipment for a cooking school includes a kitchen range; five folding work tables, each large enough for four girls; and a kitchen cabinet containing a supply of ordinary kitchen utensils for 20 girls. It costs approximately $200. The equipment for a sewing school costs much less. It includes sewing tables, patterns, a sewing machine, and other minor articles needed.

The carpentry schools resemble the schools of domestic science in their plan of organization. The equipment consists, as a rule, of eight carpenter benches and the tools necessary for elementary carpenter work. The course includes the making of simple pieces of furniture or equipment needed in the farm home or about the farm.

The cost of maintaining the itinerant schools of domestic science and of carpentry is not great, outside of the salaries of the instructors. A small fee is charged to pupils both in the domestic science schools and in the manual schools, to pay in part for the supplies used. The things made are given to the students for use at home. The fee amounts to the equivalent of 25 cents in some schools and 50 cents in others for the entire course. This hardly pays for the material used. The total cost of each school, the rent of the building included but salary omitted, is from $15 to $25, or from 50 cents to $1 per pupil. The cost of transportation from one location to the next is very little, as the distances are not great and the roads are good.

Mountmellick may be given as an illustration of a village which has secured a permanent house for the annual itinerant schools of domestic science. This village of 250 persons has a cottage fitted up for the school and for a permanent demonstration in good housekeeping. The building is a typical stone cottage, with slate roof, one story in height, about 20 feet long and 14 feet wide, used several years as a private dwelling. After several improvements and renovations had been made, such as providing a new door, new window frames, and whitewashing the walls, the building was furnished with such furniture as is used or might be used in the neighboring homes. The equipment was all purchased in local stores, and the cost of furnishing was made one of the lessons of the course. In this particular school classes were held in the cottage in the afternoon from 2 to 5 p. m. The lessons were not formal in character, each student being assigned some duty for the day, such as cleaning, dusting, cooking, etc. Included in the course of instruction was bread making; baking; cooking meats, soups, vegetables; preserving and pickling; laundry work; plain sewing; and lectures on sanitation and hygiene. As the cottage was small only 9 pupils could be enrolled in the class, and to the 9 was given a course of 10 lessons or a total of 30 hours of work.

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Teachers for these extension schools are trained by the department in two special schools established for this purpose—women for domestic science at the Irish Training School of Domestic Economy, at Kilmacud, a suburb of Dublin; men for manual instruction and carpentry at the department's "Industrial Annex," in Dublin.

The Irish Training School of Domestic Economy.—This is a residential institution housed in what was formerly a large private residence, with 3 acres of land. The house provides ample accommodation for the teachers and students, in addition to class and recreation rooms. On the land is a fruit and vegetable garden. The school gives two courses, first a course extending over one year in household management, the object of which is to train girls for the management of their own homes. Those who have satisfactorily completed this course may be admitted to a two-year course of training for teachers of domestic economy. Only those who show themselves particularly well equipped for teaching are selected.

The course in household management includes instruction in cookery and kitchen work, laundry work, home sewing and dressmaking, household routine, and the keeping of household accounts. It also includes instruction in elementary science, home hygiene, sick nursing, and in business methods and simple bookkeeping.

The additional two years provided for those training for teaching include the study of the principles of practical elementary science involved in domestic work, cookery, laundry work, dressmaking and home sewing, and housewifery. Much of the work is practice. In addition, practical instruction in home hygiene, sick nursing, and horticulture is given, and instruction in the theory and practice of education.

Admission to the school is by examination in academic subjects and in cookery and needlework. The examination in academic subjects includes English, one modern language, and arithmetic. The examination in cookery includes simple exercises in the preparation of dishes to illustrate primary methods in boiling, stewing, roasting, frying, baking, etc.; in needlework and tests to show ability to sew on ordinary underclothing. A fee of approximately $100 a year is charged each student, which includes tuition, residence, and board during the 40 weeks of the session.

The school session begins each year in September and ends in June. During the 1913–14 session 33 students were enrolled, 13 in the lowest class, or the class in household management, and 20 in the teacher-training course.

The department's industrial annex.—The institution provides an eight months' course to train artisans to give instruction in woodwork, as county itinerant instructors, or as instructors in technical or day secondary schools. The course consists mainly in practice

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in woodworking and mechanical drawing, but includes lessons on timbers, tools, and the management of classes. Students are required to attend certain designated classes for two hours three evenings each week in the Metropolitan School of Art and the City of Dublin Technical School. Admission is by competitive examination open only to qualified carpenters, joiners, pattern makers, and cabinetmakers of from 21 to 30 years of age. The examination includes written tests in English composition, arithmetic, and working drawings, and a practical test in carpentry.

The department grants each year to successful candidates 16 scholarships entitling the holders to free instruction, a maintenance allowance of approximately $7.20 per week during the eight months of the session, and railroad fare to Dublin and return.

Special classes or itinerant schools in lace making and sprigging are held in several parts of Ireland. Fermanagh County has the largest number of these schools. The county committee on technical instruction, in cooperation with the department, employed in 1913–14 eight lace-making and sprigging teachers. These teachers give instruction in various centers fixed by the county committee, with the approval of the department, of at least 6 hours per week throughout a 12 weeks' session. The instructors also spend part of their time in visiting homes where lace is made and in giving personal instruction.

For training teachers the county committee, in cooperation with the department, maintains the *Training School for Lace Teachers* in connection with the county technical school at Enniskillen, the county seat. To this school are admitted each year by the county committee a number of young women from the county, 20 years of age and over, who possess special ability in lace making and sprigging for a 12 months' course, which includes lace making, sprigging, laundering, drawing and design, English, commercial arithmetic, and hygiene. A number of women selected by the department are admitted to the school from other parts of Ireland. They are awarded scholarships after being selected by competitive examination and must show that they have a satisfactory general education and proficiency in crochet work and sprigging. The scholarships are of approximately $121 in value and are sufficient to pay for tuition, residence, and board.

THE ESTABLISHMENT OF THE DEPARTMENT OF AGRICULTURE AND TECHNICAL INSTRUCTION.

The Department of Agriculture and Technical Instruction of Ireland was organized in 1900, in accordance with an act of Parliament passed in 1899.

Information concerning its history in the first few years of its existence is given by Sir Horace Plunkett in his book published in

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1904, entitled "Ireland in the New Century." Sir Horace writes of the needs in Ireland for such a department as follows:

The story of the new movement begins in the year 1889, when a few Irishmen, the writer of these pages (Sir Horace Plunkett) among them, set themselves the task of bringing home to the rural population of Ireland the fact that their prosperity was in their own hands much more than they were generally led to believe. I have already pointed out that in order to direct the Irish mind toward practical affairs, and in order effectively to arouse and apply the latent capacities of the Irish people to their chief industry, agriculture, we must rely upon associative as distinct from individual effort; or, in other words, we must get the people to do their business together, rather than separately, as the English do. Fortunately for us, it happened that this course, which was clearly indicated by the character and temperament of the people, was equally prescribed by economic considerations. The population and wealth of Ireland are, I need hardly say, so predominantly agricultural that the welfare of the country must depend upon the welfare of the farming classes. It is notorious that the industry by which these classes live has for the last quarter of a century become less and less profitable. It is also recognized that the prime cause of agricultural depression—foreign competition—is not likely to be removed, while that from the colonies is likely to increase. The extraordinary development of rapid and cheap transit, together with recently invented processes of preservation, have enabled the more favored producers in the newly developed countries of both hemispheres successfully to enter into competition in the British markets with the farmers of these islands. The agricultural producers in other European countries, although to some extent protected by tariffs, have had to face similar conditions; but in most of these countries, though not in the United Kingdom, the farmers have so changed their methods, to meet the altered circumstances, that they seem to have gained by improvement at home as much as they have lost by competition from abroad. Thus our farmers find themselves harassed, first, by the cheaper production from vast tracts of virgin soil in the uttermost parts of the earth, and, secondly, by a nearer and keener competition from the better-organized and better-educated producers of the Continent.

To remedy these conditions, the few men mentioned by Sir Horace Plunkett arrived at the conclusion that the introduction of the principle of agricultural cooperation was a vital necessity. They therefore made a study of the cooperative movements in England and other countries, developed a plan for Ireland, and conducted a campaign to create sentiment in favor of it and established a few associations. By 1894 the movement had gathered considerable volume, and a meeting was held in Dublin in April, at which the Irish Agricultural Organization Society (now commonly known as the I. A. O. S.) was formed. In the first instance it was to consist of philanthropic persons; later were included in its membership the societies which had been already created and others as they were established. Sir Horace Plunkett was its first president. He wrote in 1903:

The growth of the movement in the last nine years under the fostering care of the I. A. O. S. is highly satisfactory. By the autumn of this year (1903) considerably over 800 societies had been established, and the number

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is ever growing. Of these, 360 were dairy and 140 agricultural societies, nearly 200 agricultural banks, 50 home industries societies, 40 poultry societies, while there were 40 others with miscellaneous objects. The membership may be estimated—I am writing toward the end of the society's statistical year—at about 80,000, representing some 400,000 persons. The combined trade turnover of these societies during the present year will reach approximately £2,000,000, a figure the meaning of which can only be appreciated when it is remembered that the great majority of the associated farmers are in so small a way of business that in England they would hardly be classed as farmers at all.

These societies consist, as has been explained, of groups of farmers who have been taught by organizers that certain branches of their business can be more profitably conducted in association than by individuals acting separately. The principle of agricultural cooperation, with its economic advantages, will, as time goes on, be further extended by the combined action of societies. With this end in view federations are constantly being formed with a constitution similar to that of the societies, the only difference being that the members of the federation are not individuals but societies, the government of the central body being carried on by delegates from its constituent associations. The two largest of these federations, one for the sale of butter and another for the combined purchase by societies of their agricultural requirements, have been working successfully for several years. Federations, too, are being formed, as societies find that their business can be conducted more economically, for example, in dairying by centralizing the manufacture of butter, or in the egg export trade by the alliance of many districts to enable large contracts to be undertaken.

The organizations referred to above are buying and selling organizations. Another sort of organization undertaken by the I. A. O. S. is of particular interest. These are the agricultural banks, more properly called credit associations, which have been organized on the Raiffeisen system.

The exact purpose of these organizations is to create a means of introducing capital into the agricultural industry. They perform the apparent miracle of giving solvency to a community composed almost entirely of insolvent individuals. The constitution of these bodies, which can, of course, be described only in broad outline here, is somewhat startling. They have no subscribed capital, but every member is liable for the entire debts of the association. Consequently the association takes good care to admit men of approved character and capacity only. It starts by borrowing a sum of money on the joint and several security of its members. A member wishing to borrow from the association is not required to give tangible security, but must bring two sureties. He fills up an application form which states, among other thing, what he wants the money for. The rules provide—and this is the salient feature of the system—that a loan shall be made for a productive purpose only; that is, a purpose which, in the judgment of the other members of the association as represented by a committee democratically elected from among themselves, will enable the borrower to repay the loan out of the results of the use made of the money lent.

Raiffeisen held, and our experience in Ireland has fully confirmed his opinion, that in the poorest communities there is a perfectly safe basis of security in the honesty and industry of its members. This security is not valuable to the ordinary commercial lender, such as the local joint stock bank.

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A. LOUGHGLYNN AGRICULTURAL SCHOOL FOR GIRLS.

B. KILLARNEY SCHOOL OF HOUSEWIFERY; REFECTORY.

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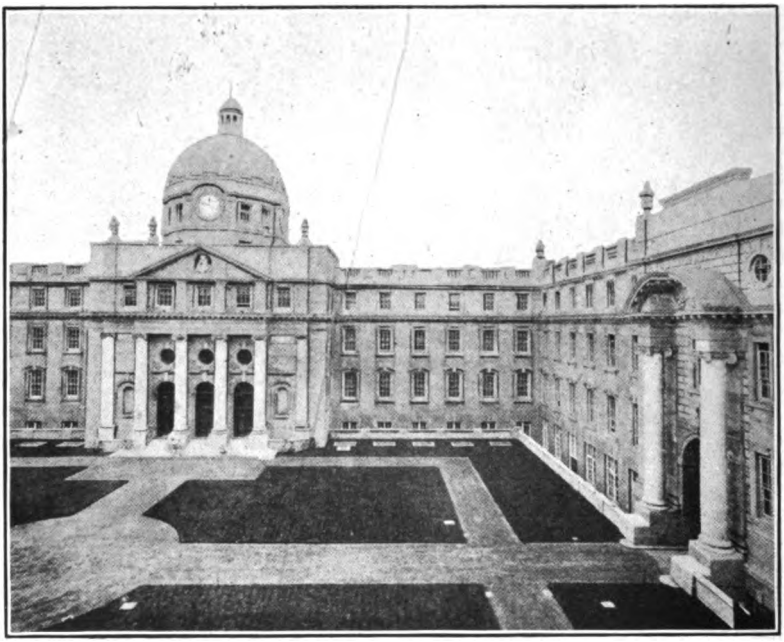

ROYAL COLLEGE OF SCIENCE, DUBLIN.

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Even if such lenders had the intimate knowledge possessed by the committee of one of these associations as to the character and capacity of the borrower, they would not be able to satisfy themselves that the loan was required for a really productive purpose; nor would they be able to see that it was properly applied to the stipulated object. One of the rules of the cooperative banks provides for the expulsion of a member who does not apply the money to the agreed productive purpose. But although these "banks" are almost invariably situated in very poor districts, there has been no necessity to put this rule in force in a single instance. Social influences seem to be quite sufficient to secure obedience to the association's laws.

Another advantage conferred by the association is that the term for which money is advanced is a matter of agreement between the borrower and the bank. The hard and fast term of three months which prevails in Ireland for small loans is unsuited to the requirements of the agricultural industry, as for instance, when a man borrows money to sow a crop and has to repay it before harvest. The society borrows at 4 or 5 per cent and lends at 5 or 6 per cent. In some cases the congested districts board or the Department of Agriculture has made loans to these banks at 3 per cent. This enables the societies to lend at the popular rate of 1 penny for the use of 1 pound for a month. The expenses of the administration are very small. As the credit of these associations develops, they will become a depository for the savings of the community, to the great advantage of both lender and borrower. The latter generally makes an enormous profit out of these loans, which have accordingly gained the name of "the lucky money," and we find, in practice, that he always repays the association and almost invariably with punctuality.

The agricultural cooperative movement became very successful and exceedingly popular. From it, however, developed a feeling that something further was needed, and the opinion that Ireland should have a board of agriculture similar to those existing in other countries, with power to control certain features of the agricultural industries and to stimulate agricultural development through state aid. As a result there was formed, largely through the efforts of those most prominent in the I. O. A. S., the committee known as the "recess committee," which sat in the Parliamentary recess, consisting of Irish members of Parliament nominated by the leaders of the different sections and others selected by these members. This committee, which was formed in the fall of 1895, made an inquiry into the means by which the Government could best promote the development of the agricultural and industrial resources, making a first-hand study of conditions and progress in several European countries. Information was also obtained from the United States and Canada. Its recommendations were for a department of Government to be specially created, with a minister directly responsible to Parliament at its head, and financial support from the imperial treasury to be administered in aid to agriculture and industries in Ireland upon principles fully described. The report of the committee was issued in August, 1896, and public opinion in favor of its proposals grew rapidly. Before the end of the year 1896 a committee representing

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all the agricultural and industrial interests of the country waited upon the Irish Government in order to press upon them the urgent need of the new department. As a result a bill was introduced before Parliament the following year, but withdrawn on account of other measures affecting Ireland before Parliament. In 1899 another bill was introduced and became a law, the new department being organized in 1900.

The department consists of the president (who is the chief secretary for the time being) and the vice president. The staff is composed of a secretary, two assistant secretaries (one in respect of agriculture and one in respect of technical instruction), as well as certain heads of branches and a number of inspectors, instructors, officers, and servants. The recess committee, it will be remembered, had laid stress upon the importance of having at the head of the department a new minister who should be directly responsible to Parliament; and, accordingly, it was arranged that the vice president should be its direct ministerial head. The act provided that the department should be assisted in its work by a council of agriculture and two boards, and also by a consultative committee to advise upon educational questions. * * * It was created to fulfill two main purposes. In the first place, it was to consolidate in one authority certain interrelated functions of government in connection with the business concerns of the people which, until the creation of the department, were scattered over some half dozen boards, and to place these functions under the direct control and responsibility of the new minister. The second purpose was to provide means by which the Government and the people might work together in developing the resources of the country so far as State intervention could be legitimately applied to this end.

To accomplish the first object two distinct Government departments, the veterinary department of the Privy Council and the office of the inspectors or Irish fisheries, were merged in the new department. The importance to the economic life of the country of having the laws for safeguarding our flocks and herds from disease, our crops from insect pests, our farmers from fraud in the supply of fertilizers and feeding stuffs and in the adulteration of foods (which compete with their products), administered by a department generally concerned for the farming industry need not be labored. Similarly, it was well that the laws for the protection of both sea and inland fisheries should be administered by the authority whose function it was to develop these industries. There was also transferred from South Kensington the administration of the science and arts grants and the grant in aid of technical instruction, together with the control of several national institutions, the most important being the Royal College of Science and the Metropolitan School of Art; for they, in a sense, would stand at the head of much of the new work which would be required for the contemplated agricultural and industrial developments. The Albert Institute at Glasnevin and the Munster Institute in Cork, both institutions for teaching practical agriculture, were, as a matter of course, handed over from the board of national education.

* * * * * * *

The newly created powers of the department, which were added to and coordinated with the various preexisting functions of the several departments whose consolidation I have mentioned above, fairly fulfilled the recommendation of the recess committee that the department should have "a wide reference and a free hand." These powers include the aiding, improving, and developing of agriculture in all its branches; horticulture, forestry, home and cottage

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industries; sea and inland fisheries; the aiding and facilitating of the transit of produce; and the organization of a system of education in science and art, and in technology as applied to these various subjects. The provision of technical instruction suitable to the needs of the few manufacturing centers in Ireland was included, but need not be dealt with in any detail in these pages, since, as I have said before, the questions connected therewith are more or less common to all centers and have no specially Irish significance.

For all the administrative functions transferred to the new department, moneys are, as before, annually voted by Parliament. Toward the fulfillment of the second purpose mentioned above—the development of the resources of the country upon the principles of the recess committee—an annual income of £166,000, which was derived in about equal parts from Irish and imperial sources, and is called the department's endowment, together with a capital sum of about £200,000, were provided.

* * * * * * *

The very nature of the work which the department was called into existence to accomplish made it absolutely essential that it should keep in touch with the classes whom its work would most immediately affect, and without whose active cooperation no lasting good could be achieved. The machinery for this purpose was provided by the establishment of a council of agriculture and two boards, one of the latter being concerned with agriculture, rural industries, and inland fisheries; the other with technical instruction. These representative bodies, whose constitution is interesting as a new departure in administration, were adapted from similar continental councils which have been found by experience, in those foreign countries which are Ireland's economic rivals, to be the most valuable of all means whereby the administration keeps in touch with the agricultural and industrial classes, and becomes truly responsive to their needs and wishes.

The council of agriculture consists of 2 members appointed by each county council (Cork being regarded as two counties and returning 4 members), making in all 68 persons. The department also appoints one-half this number of persons, observing in their nomination the same provincial proportions as obtained in the appointments by the popular bodies. This adds 34 members, and makes in all 102 councilors, in addition to the president and vice president of the department, who are ex officio members. Thus, if all the members attended a council meeting, the vice president would find himself presiding over a body as truly representative of the interests concerned as could be brought together, consisting, by a strange coincidence, of exactly the same number as the Irish representatives in Parliament.

The council, which is appointed for a term of three years, the first term dating from the 1st of April, 1900, has a twofold function. It is, in the first place, a deliberative assembly, which must be convened by the department at least once a year. The domain over which its deliberations may travel is certainly not restricted, as the act defines its function as that of "discussing matters of public interest in connection with any of the purposes of this act." * * *

The second function of the council is exercised only at its first meeting, and consequently but once in three years. At this first triennial meeting it becomes an electoral college. It divides itself into four provincial committees, each of which elects two members to represent its province on the agricultural board and one member to represent it on the board of technical instruction. The agricultural board, which controls a sum of over £100,000 a year, consists of 12 members, and as 8 out of the 12 are elected by the four provincial committees—the remaining 4 being appointed by the department, 1 from each

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province—it will be seen that the council of agriculture exercises an influence upon the administration commensurate with its own representative character. The board of technical instruction, consisting of 21 members, together with the president and vice president of the department, has a less simple constitution, owing to the fact that it is concerned with the more complex life of the urban districts of the country. As I have said, the council of agriculture elects only 4 members—1 for each province. The department appoints 4 others; each of the county boroughs of Dublin and Belfast appoints 3 members; the remaining four county boroughs appoint 1 member each; a joint committee of the councils of the large urban districts surrounding Dublin appoint 1 member; 1 member is appointed by the commissioners of national education, and 1 member by the intermediate board of education.

The two boards have to advise upon all matters submitted to them by the department in connection, in the one case, with agriculture and other rural industries and inland fisheries, and, in the other case, in connection with technical instruction. The advisory powers of the boards are very real, for the expenditure of all moneys out of the endowment funds is subject to their concurrence. Hence, while they have not specific administrative powers and apparently have only the right of veto, it is obvious that, if they wished, they might largely force their own views upon the department by refusing to sanction the expenditure of money upon any of the department's proposals until these were so modified as practically to be their own proposals. It is therefore clear that the machinery can only work harmoniously and efficiently so long as it is moved by a right spirit.

* * * * * * *

"For the purpose of coordinating educational administration there shall be established a consultative committee consisting of the following members:

"(*a*) The vice president of the department, who shall be chairman thereof;

"(*b*) One person to be appointed by the commissioners of national education;

"(*c*) One person to be appointed by the intermediate education board;

"(*d*) One person to be appointed by the agricultural board; and

"(*e*) One person to be appointed by the board of technical instruction."

Now the real value of this clause, and in this I think it shows a consummate statesmanship, lies not in what it says, but in what it suggests. The committee, it will be observed, has an immensely important function, but no power beyond such authority as its representative character may afford. Any attempt to deal with a large educational problem by a clause, in a measure of this kind, would have alarmed the whole force of uncoordinated pedagogy, and perhaps have wrecked the bill. The clause as it stands is in harmony with the whole spirit of the new movement and of the legislation provided for its advancement. The committee may be very useful in suggesting improvements in educational administration which will prevent unnecessary overlapping and lead to cooperation between the systems concerned.

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APPENDIX.

THE ESTATES COMMISSION AND CONGESTED DISTRICTS BOARD.

The following is quoted from Senate Document No. 214 (1913), *Agricultural Cooperation and Rural Credit in Europe.*

The Estates Commission of three members, appointed for life, had its origin in the Windham Act of 1902, dealing with the division and purchase of estates by tenants. This commission now handles about £8,000,000 per year, all used for the purchase and division of estates.

These estates may be purchased at a voluntary sale from the owners or (within the area of the congested districts board) the sale may be made on compulsion. At present the sales are almost all voluntary. Since its inception the estates commission has purchased and resold about 8,000,000 acres, valued at £90,000,000.

The Congested Districts Board is a larger commission, also nominated by the Government, and has for its object the division and sale of estates in nine western counties of Ireland, where the congestion of tenants was such that the cottager was unable to make a living on his very small parcel of ground. This board has purchased land worth perhaps £3,000,000, of which it has sold about 100,000 acres to date.

The field of operations of the estates commissioners covers all of Ireland; the board works in but nine counties in the poorer parts, but their purposes are similar. The Congested Districts Board has, however, many other activities besides the splitting up of land.

The procedure is about as follows: A large estate, perhaps entirely in pasture land, is put up for sale. The officials appraise it with reference to its productiveness. If the price asked by the owner is satisfactory, the estate is purchased and the owner is paid in Government land scrip or stock bearing 3 per cent interest. Hitherto the voluntary seller has been given a bonus of 12 per cent of the purchase price, but this bonus seems to have been withdrawn recently.

Estates sold under compulsion the Government must pay for in cash. As a matter of fact, there are three methods of paying for land: (*a*) In stock, the usual and immediate-payment method; (*b*) in cash, an option which is rarely resorted to, since the prospective seller must in this case await his turn, for cash sales are often very long delayed; (*c*) or partly in cash and partly in scrip. * * *

Once purchased, the estate is divided into tracts of 25 to 30 acres; line walls are built, if necessary; a house is constructed at a cost of about £200; and the place is sold to a tenant, preferably a former tenant on the estate, sometimes a purchaser from some other district. Since there are frequently 25 to 40 applicants for each holding, it is not difficult to find honest, capable, industrious purchasers. Very often an estate is purchased by the tenants thereon by mutual agreement with their former landlord as to purchase price. The Government buys the estate, pays the landlord in stock or scrip, and sells it in small holdings to the tenants, who thus become the debtors of the State.

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The land must be sold to the purchasing small holders at a price not to exceed the purchase price. Frequently it is sold for less. Or the land plus the house and improvements are sold at the actual price paid for the land.

The small holder, who may have no capital—and seldom has enough to stock the holding—pays at present 3 per cent interest on the purchase price and one-half per cent amortization, or a total of 3½ per cent, payable in semiannual instalments. This rate amortizes the debt in about 62 years. The purchaser is given a title to the land, pays the taxes on it, and may transfer his equity at any time if he chooses.

Out of £90,000,000 sold, the failures to pay the instalments promptly have been inconsiderable. In the County of Cork the defaults have been nil. In case of default or failure the instalments are paid out of the County exchequer; hence the tendency to pay promptly is warmly applauded and the slow payer is frowned upon. The results of this system seem to be excellent.

In the district about Roscommon and Castlereagh some 200 or more small holders have been established on the land, partly under the authority of the Estates Commissioners, partly under the Congested Districts Board. The lands here subdivided were formerly pasture or grazing land held in one or two very large estates. It appears that some 50 years ago this section was stripped of the small holders who then occupied it and who were hard pressed by the high rent charges, the whole consolidated into very large holdings—one of them nearly 20 miles in length—and turned into pasturage. When this land was purchased by the Government in 1906 and 1907, there was scarcely a tilled acre on the whole tract, almost no walls or fences, and a very few poor buildings, chiefly herders' cottages.

The Government divided the land into tracts of 25 to 40 acres, rebuilt the fallen walls, erected comfortable houses of various styles of architecture, some two-story and some single-story buildings, frequently put up other farm buildings, planted trees, and laid out gardens. The houses cost about £180 to £200 each, are built of stone, and seem very neat and comfortable.

After the new owners, who were obtained from a poorer district, had been established in their new homes the Department of Agriculture and Technical Instruction put into the field an instructor in agriculture. * * *

The committee drove over several miles of the district near Castlereagh and personally interviewed a number of farmers. They are uniformly hopeful, although some are much more intelligent and thrifty than others. All are paying their instalments. Only one vacated house was seen, the owner having transferred his equity to a larger holder. All the holders visited were married men with comparatively large families, and all seemed to have some relatives—children, brothers, or sisters—in the United States. The small-holdings movement has not stopped emigration, but it has made agriculture and rural life more hopeful. The contrast between the old thatched-roof, one-story cottage and the new two-story, slate-roofed home, with a large yard and flower garden, well laid out and inclosed by a substantial wall, is very marked. The new homes are much more comfortable, even if less picturesque, than the old white-washed cottage with the low roof and the unpleasant sanitary surroundings.

The Government in several instances has made loans to small holders for the purpose of enabling them to purchase tools, manures, stock or other capital to an extent of perhaps £50 per individual. These loans are made at 3 per cent; in general no repayment except interest is required for a few years, and the loan need not be entirely repaid until the expiration of 10 years.

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DEPARTMENT OF THE INTERIOR
BUREAU OF EDUCATION

BULLETIN, 1916, No. 42

MINIMUM SCHOOL-TERM REGULATIONS

BY

J. C. MUERMAN
SPECIALIST IN RURAL EDUCATION
BUREAU OF EDUCATION

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LETTER OF TRANSMITTAL.

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION,
Washington, August 18, 1916.

SIR: The efforts of county, State, and National officials and of States in all parts of the country to provide opportunities of education for children outside the cities and larger towns have stimulated a general interest in the required length of the school term, and the desire for the requirement of a minimum school term sufficient to enable all children in all communities to acquire at least a good elementary education. For the purpose of giving information as to the present laws and regulations in regard to this subject, I recommend that the manuscript prepared by Mr. J. C. Muerman, specialist in rural education, in this bureau, be published as a bulletin of the Bureau of Education.

Respectfully submitted.

P. P. CLAXTON,
Commissioner.

The SECRETARY OF THE INTERIOR.

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MINIMUM SCHOOL-TERM REGULATIONS.

Forty-four States have established by law a minimum term of from 60 to 180 days' schooling for each organized school district. Four States—Louisiana, Alabama, Rhode Island, and Georgia—have no minimum requirement laws, but one of these, Rhode Island, has for over 10 years maintained the longest average term in the United States. While the minimum number of days required is almost invariably much less than the actual average number of days in the school term for the State, a majority of the States still report many schools unable to meet even these low minimum requirements. Within the past three years, 12 States—Arizona, Colorado, Idaho, Kansas, Maine, Nebraska, Nevada, New York, North Carolina, North Dakota, Vermont, and Wyoming—have added from 10 to 60 days to the legal requirement of a minimum school term.

Some of the factors that have operated in favor of a longer school term, aside from the general awakening of public sentiment, are the phenomenal growth of the public high schools, the development of State financial aid for weak districts, equalization funds, and penalties for not maintaining a minimum term required by law.

The growth of the public high schools has tended to lengthen the term in the elementary schools by setting up standards of admission by certificate or examination which can ordinarily be met by grade schools with a term of at least eight months.

Lack of provision for adequate funds is perhaps the greatest hindrance to a longer school term. A majority of the States have fully realized the necessity for more State financial assistance and have enacted laws giving State aid to weak districts to enable them to maintain a minimum school term. A wise provision in most of these laws makes the levy of a specified minimum rate of local taxation necessary and provides for a certain specified standard of school before aid becomes available. These laws are, as a rule, intended to help only those who first help themselves. The necessity of greater local cooperation and aid is urged in the 1912 report of the State superintendent of public instruction for Georgia. This report calls attention to a tendency to lean too heavily upon State aid, and cites the laws of another State which require a county levy of not less

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than 3 and not more than 7 mills before State aid can be secured. The superintendent declares—

> If we have enough money for longer terms and better-paid teachers, we can rely upon our system of public schools to do the work expected.

Numerous bills introduced in recent legislatures show a growing sentiment favoring laws enforcing a higher rate of taxation upon the local districts in order that they may maintain a longer school term. In the State of Minnesota and in a few other States some school districts contain public State lands that yield no revenue whatever for the school fund, State lands not being taxed. When there is a considerable amount of this land in the district the school fund is low. To meet this condition the State of Minnesota appropriates the sum of $50,000 annually to aid these special districts, and contributes from this special sum an amount equal to a tax of 5 cents upon each acre of public-school lands, but no district may receive from this fund an amount in excess of $250 during any school year. In the year 1910 the State of Ohio appropriated a sum of $50,000 to aid school districts which could not by the maximum levy permitted by law maintain a public school eight months, paying teachers $40 a month. In the State of Tennessee for several years 10 per cent of the general education fund (the education fund being one-fourth of the revenue of the State) was set aside for the purpose of helping the several counties of the State to maintain schools more nearly equal in quality and length of term, the requirements upon the part of the county being a tax of not less than 40 cents upon the $100 of taxable property, $2 on each poll, and the full amount of privilege taxes which the laws permit counties to levy for school purposes. This equalization fund was distributed among the counties meeting these requirements according to scholastic population and inversely as the ratio of taxable property to scholastic population. In this way the poorer counties received a larger amount in proportion than the richer counties. At the 1913 session of the legislature the general education fund was increased to one-third the revenues of the State, and the method of distribution of the 10 per cent was changed.

The State of North Carolina sets aside annually 5 per cent of the annual ad valorem tax levied and collected for State purposes on each $100 value of real and personal property in the State, and this fund, separate and apart from other funds, is known as the State equalizing fund. The object of the fund is to provide a six months' school term for each district in the State. The need of an equalization fund is well shown in the annual report of the State superintendent of Nebraska for 1912. The superintendent describes two school districts only 5 miles apart, one of which on account of a large tax

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on railroad property, can easily maintain its schools 180 days with a 5-mill levy, while the other can maintain its schools only 100 days with a levy of 25 mills.

Penalties for not providing a school term as provided by law vary from mandatory, as in North Carolina, where the county commissioners are liable to indictment if they fail to maintain a public district school at least four months in each year, to no penalty specified. A majority of the States provide that the State appropriations shall be withheld for noncompliance with the law. The opinions of some of the State superintendents indicate how interest in this vital matter has increased. One superintendent says:

> It seems too bad that in a young State like ours we did not begin right. It has only been a few years since the rural schools sprang up in our State, and all the undesirable features have been adopted, the terms are short, etc. We have accomplished at least one thing—we have a revenue law which provides that no school shall be entitled to county tax unless it is maintained for at least 120 days.

One State superintendent, who was formerly a county superintendent, advocates outlining the work for a definite period of time and says:

> I outlined the work of the grades for 160 days' continuous work, and this did more than anything else to bring the farmer to see that if he wanted his boy in his district to keep up with his neighbor's boy in the adjoining district he would need to have 160 days of school, because the work was planned for 160 days, and if he gave his boy but 140 days he was simply 20 days short in his school work. This concrete example did more than any words of mine to increase the length of term in every district to 160 days, and in many cases to 180 days.

Another State superintendent, writing of a difficulty in his State, remarks:

> It is going to mean an immense amount of work to wake up these wealthier communities that have now lost all of the young progressive spirit. Our rural communities are chiefly inhabited by the middle-aged and the aged, and to work on them is a very difficult proposition.

One-half of all the State superintendents have expressed a willingness to cooperate in securing a uniform 160 days' term for the rural schools, which will materially increase the present average of 137.7 days.

GENERAL CONDITIONS IN THE STATES.

Alabama.—Although no minimum term is provided by law, the average length of the school term for the year 1911–12 as given in the annual report of the department of education was 132 days, an increase of 5 days over the average for the preceding year.

Arkansas.—The report of the State superintendent shows that in 1913 the average length of term for the rural schools was 127.1

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days, an increase of 9.2 days over the 1912 report. In the report for the year 1900, the average for all schools was only 77.4 days. The recent amendment to the State constitution increasing the State school tax from 2 to 3 mills has greatly aided the poorer districts in increasing the school term.

Connecticut.—The minimum school term of 180 days is evidently not too long for pupils in this State. The report for 1910 shows an average of 181.2 days for the rural schools, while the urban schools report an average of 3.8 days more. The average number of school days for 1912 was 188 for the urban and 186 for the rural schools. The report for 1910–11 compares the report for 1888 with the year 1902, showing an increase of 9.35 days.

Florida.—The average length of term for all schools of the State in 1913 was 120 days. The lowest average length of term in any county was 80 days. Only one county had so short a term.

Georgia.—In the report for the year 1912 the State superintendent urges the enacting of a minimum-term law of 120 days for each school year and an extra appropriation of $100,000 as a State equalization fund to aid counties and districts that are unable to comply with this proposed limit. He refers to many communities where only a 100 days' term is maintained.

Indiana.—The report of the State superintendent for 1912 calls attention to the inadequacy of the revenue law and recommends an increase in the local rate of taxation to 40 and 50 cents on the $100 valuation in order to maintain a minimum school term. The following from the report shows increases in average length of terms for years named:

	Days.
In townships:	
1910–11	139
1911–12	140
In towns:	
1910–11	158
1911–12	162
In cities:	
1910–11	183
1911–12	187

Kansas.—An appropriation of $150,000 was made by the State to aid weak districts in maintaining a minimum term of 140 days, but the biennial report of the State superintendent shows that for the year 1912 only $14,000 was needed and the present year (1913) for the same purpose only $29,657.83, leaving a balance of over $106,000 in the biennial appropriation. The annual appropriation for 1914–15 was $35,000. The necessary levy to receive aid from this State fund is 4½ mills. The average school term in 1862 was 64 days; in 1912, 155 days. This does not include cities of the first or second class.

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Kentucky.—The report of the superintendent of public instruction for 1911 gives 7,293 schools having the minimum term of 120 days; 759 reported a term above and 66 below the minimum.

Louisiana.—While no minimum is required, the report of the department of education for 1911–12 states that the average length of the school term for white children was 157.2 days and for colored children 61.2 days. For the year 1912–13 it was 155 days for white children and 88 for the colored.

Maryland.—The report for the year 1912 gives the average term for white children 180.7 days for all schools, and 121.8 days for colored children.

Michigan.—The average number of days for the school year 1912 was 170 for ungraded and 189 days for graded schools, an increase of 9 days in the ungraded schools and 8 in the graded over the report of 1902.

Minnesota.—The average term for rural schools for 1909–10 was 132.5 days. For the purpose of receiving State aid the rural schools are divided into three classes: Class "A" must employ a teacher who holds a first-grade certificate and must maintain a term of school for not less than 160 days, $150; Class "B," the teacher must hold at least a second-grade certificate. The term must not be less than 160 days, $100; Class "C," a session of not less than 140 days, employing a teacher having a second-grade certificate, $75.

State aid during the year 1912 was given to 555 school districts, Class "C"; 1,396, Class "B"; and 2,453, Class "A." A deficit in the fund for State aid was noted in the sum of $104,247. One thousand two hundred and fifty-nine more schools received aid during the year 1912 than during the preceding year.

Missouri.—A plan for the approval of rural schools that conform to specific requirements, the first of which is a 160 days' term, at least, is fully explained in the sixty-third report (1912) of the State superintendent of public schools, and over 300 schools are reported approved, filling the requirements for the year 1912. State aid to provide for a minimum term of 160 days was given 286 districts in 1911 and 373 in 1912.

Montana.—In the report for the biennium ending August 31, 1912, of the State superintendent, the average length of the rural school term was shown to be 140 days; one-fifth of the districts reported a term less than 120 days; and a few districts reported less than 80 days.

Nebraska.—The report for the school year ending January 8, 1912, shows that 2,048 districts had a school term of 180 days or over, 4,413 districts from 120 to 180 days, 469 districts from 90 to 120 days, and 223 districts less than 90 days.

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State aid is given weak districts to enable them to continue schools to a minimum of 140 days.

New Hampshire.—The average term for the State was 169 days. In 1881–82 it was 91.15 days.

By a regulation of the State department public schools, approved high schools, and academies must maintain the schools at least 180 days.

New Mexico.—The sum of $42,768.47 was expended during the school years 1912–13 and 1913–14 for maintaining a minimum school term of 100 days in weak districts of the State. Of this amount $30,837.89 was used for this purpose during the year ending September 1, 1914.

The State superintendent says that, as the income from common school lands is constantly increasing, it is probable that the minimum term may reach 140 days during the next biennial period.

New York.—The school act of 1812 required a district to operate a school for at least 60 days. In 1847 this was increased to 80 days by special act of the legislature, and in 1851 a further increase was made to 120 days. Again in 1861 the term was lengthened to 140 and in 1890 to 160, and finally by act of the recent legislature, 1913, to 180 days.

In the annual report for 1913 a recommendation was made to have all schools open upon a uniform date, the first Tuesday in September, and that the term minimum be 190 days, inclusive of legal holidays.

North Carolina.—The recent legislation making 120 days a minimum term has raised a very vital question of securing the necessary funds for the maintenance of the schools for this term. In the biennial report of the State superintendent for the year 1911–12 a recommendation which was enacted into a law by the legislature was made to increase the present school fund by increasing the State levy.

The average length of the school term for 1912 in rural white schools was 97.7 days and for urban white schools 181.3. The average for all white schools of the State was 112.8 days. In the rural colored schools the average was 84.7 and in the urban 172.9, an increase in the average number of days in the rural white schools of 5 days and in the colored 3 days.

In the local tax districts the rural white schools maintained an average of 133 days.

North Dakota.—The legislature in the year 1911 revised the entire school law and fixed the minimum term at 140 days. The State superintendent in the twelfth biennial report, under date of June 30, 1912, recommends a minimum term of 160 days. The same report shows the average term in the rural schools for the year 1912 was about 150 days.

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Ohio.—The fifty-eighth annual report of the State school commissioner for the year ending August 31, 1911, gives the average number of days of the school term in the elementary township schools as 160 and in the separate district schools as 170 days. In the separate districts, elementary and high, they have an average of 170 and 175 days, respectively.

Oklahoma.—A minimum term of 120 days was suggested for the rural schools in the fourth biennial report for 1911–12 and 180 days for the city schools.

The average term for the 5,859 district schools of the State was 122 days for 1912.

Oregon.—The average number of days in the school year of 1913 for all schools was 150.8 days. The following lengths of terms by districts is given: 551, term of 180 days; 572, term of 160 days; 328, term of 140 days; 667, term of 120 days.

The sentiment in this State seems to be very strong for an average term in the rural schools of 160 days.

Pennsylvania.—The report of the State board of education for the year ending December 31, 1912, states that 24 townships having a total of 149 schools could not maintain their schools for the minimum term 140 days, even with the maximum tax levy. A special State aid fund is recommended to provide sufficient funds for these special cases.

South Carolina.—The forty-fourth annual report of the State superintendent of 1912 gives the average term of school for white children for the entire State, all schools, 117.5 days, for country children, 111, and town children 157.5 days; for colored children, all schools 69, country children, 65.5, and town children 106.5. The State superintendent urges increased local taxation to lengthen the school term.

State aid of $200 per year is given districts employing two certified teachers for a school term of not less than 120 days, after a local levy of not less than 4 mills has been made, also State aid in the sum of $300 annually is given when a local levy of 4 mills has been made and three or more certified teachers employed for a school term of not less than 140 days.

South Dakota.—The eleventh report for the biennium ending June 30, 1912, states that 4,472 districts maintained their schools for a period of 120 days or more, 245 for a less period and 293 failed to maintain any school.

The State superintendent recommends increasing the minimum term from 120 to 140 days.

Tennessee.—The biennial report of the State superintendent for 1911–12 gives the average length of the school term for the year 1912 in the elementary schools as 114 days and for the year 1911,

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121 days. The decrease was explained to be due to a change in appropriation of the school funds from an annual to a semi-annual distribution, some districts not providing for this in equalizing the funds found a shortage in the amount of money, and the consequence was a shorter term of school. The State superintendent invites attention to the large amount used by some districts for buildings, repairs, etc., and the shortening of the school term in consequence, and urges a consideration first of length of the school term.

Texas.—The State superintendent reports: "The constitution and statutes of the State contemplate at least 120 days of schooling for each child, while the facts show conclusively that Texas is not giving one-half of 120 days of schooling to each of the country children of Texas."

Vermont.—In the forty-second biennial school report the superintendent of education says: "There is no justice in any law or system that permits one child to have 180 days of schooling in an inspiring school atmosphere which is produced by a pleasant schoolroom and a well-trained and highly cultured teacher while it allows another child only 140 days of schooling and requires him to receive that in a depressing atmosphere which is produced by an unkept schoolroom, unwholesome surroundings, and a mercenary amateur as a teacher."

The average school term for the year 1912 was 160 days. Sixty-seven districts reported a term less than 140 days, and 273 districts report from 140 to 145 days. The report for the year ending June 30, 1913, shows 116 schools unable to maintain their schools up to the minimum required (150 days).

West Virginia.—The biennial report of the State superintendent of schools for 1910–1912 reports their average term of school for the year 1912 was 137 days, an increase of 2 days over the report for the preceding year.

The superintendent prefers some other method of augmenting the school fund without increasing the school levy in order to have the minimum term of 120 days for the elementary schools.

He suggests as one method an endowment fund to be created by placing a very small royalty on the water power still owned and controlled by the State, also a production tax on gas, all to be placed in a State fund for the benefit of the schools.

Wisconsin.—The fourteenth biennial report for the biennium ending 1910 gives the average term for the rural schools of the State as 173 days, and for the entire State 180 days. For the purpose of receiving State aid, State-graded schools are divided into first and second classes. The first class, maintaining three or more departments and a minimum term of 180 days, will receive $300; the second class, maintaining two departments for a minimum term of 180 days, re-

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ceives $200. State aid of $10 a month is also given to a rural school of one department that maintains a school for 180 days and employs a teacher who is a graduate of a State normal school or of another school of equal standard, and $5 a month to any rural school which employs a first grade teacher for 180 days. In both cases the State aid must apply to the salary of the teacher, and a daily attendance of between 30 and 40 must be maintained.

Length of session in days.[1]

States.	In all schools, 1911–12.	In all schools, 1909–10.	In urban schools, 1909–10.	In rural schools, 1909–10.	Urban excess over rural, 1909–10.
United States	158.0	157.0	184.3	137.7	46.6
North Atlantic Division	180.9	179.7	188.5	159.7	28.8
South Atlantic Division	131.5	132.4	178.7	119.5	59.2
South Central Division	129.5	125.7	174.0	117.6	56.4
North Central Division	164.8	164.7	184.1	152.7	31.4
Western Division	164.1	161.8	180.7	145.0	35.7
North Atlantic Division:					
Maine	164.2	159.0	177.4	142.5	34.9
New Hampshire	169.0	164.0	176.0	149.7	26.3
Vermont	160.0	160.2	185.0	147.0	38.0
Massachusetts	186.0	186.0	188.5	160.7	27.3
Rhode Island	194.1	193.0	194.0	190.2	3.8
Connecticut	184.2	184.7	185.0	181.2	3.8
New York	187.5	187.5	189.9	178.6	11.7
New Jersey	187.8	184.0	186.5	176.7	9.8
Pennsylvania	171.0	170.0	187.6	149.4	38.2
South Atlantic Division:					
Delaware	170.0	172.5	193.0	157.0	36.0
Maryland	179.5	185.0	191.0	179.8	11.2
District of Columbia	179.2	181.2	181.2	.....	.....
Virginia	138.9	140.0	177.8	130.5	47.3
West Virginia	137.0	134.0	176.0	127.5	28.5
North Carolina	109.2	101.9	161.8	93.3	68.5
South Carolina	92.0	105.1	183.0	94.5	88.5
Georgia	142.0	144.4	180.6	141.5	39.1
Florida	122.2	115.1	159.2	100.1	59.1
South Central Division:					
Kentucky	139.2	125.0	181.8	110.6	71.2
Tennessee	127.8	130.0	172.5	122.0	50.5
Alabama	132.4	117.3	178.3	108.5	69.8
Mississippi	123.0	135.0	170.5	131.0	39.5
Louisiana	132.0	135.6	170.2	124.1	46.1
Texas	132.0	131.0	173.0	119.2	53.8
Arkansas	117.9	106.5	174.0	98.0	76.0
Oklahoma	130.0	136.0	171.2	128.5	43.2
North Central Division:					
Ohio	165.5	170.0	184.7	155.0	29.7
Indiana	168.0	147.0	177.2	130.3	46.9
Illinois	158.0	171.0	185.8	154.8	31.0
Michigan	172.0	171.0	185.5	161.6	23.9
Wisconsin	175.7	180.0	191.0	173.0	18.0
Minnesota	162.0	149.0	184.0	132.5	51.5
Iowa	172.0	172.0	181.0	168.6	12.4
Missouri	157.4	155.0	190.0	137.7	52.3
North Dakota	146.3	147.3	182.8	143.2	39.6
South Dakota	167.1	165.9	178.0	163.8	14.2
Nebraska	158.5	173.0	180.5	170.5	10.0
Kansas	172.0	163.5	174.1	160.0	14.1
Western Division:					
Montana	165.4	158.0	181.5	138.5	43.0
Wyoming	147.5	140.9	173.5	136.0	37.5
Colorado	175.0	156.0	180.3	123.8	56.5
New Mexico	125.0	100.0	163.2	90.1	73.1
Arizona	155.5	135.5	174.6	105.0	69.6
Utah	155.6	164.8	173.7	157.0	16.7
Nevada	145.0	145.3	170.0	131.8	38.2
Idaho	152 0	137.0	179.5	112.5	67.0
Washington	174.0	172.0	183.8	164.0	19.8
Oregon	143.5	138.0	173.5	118.7	54.8
California	174.4	182.0	186.0	178.0	8.0

[1] Column 1 from Rep. of the Commissioner of Ed. for year ending June 30, 1912; columns 2 to 5 from Bul., 1913, No. 8. No later data on urban and rural schools, separately, are available.

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Minimum-term regulations in the various States.

States.	Session.	Minimum term.
Alabama		No minimum school term provided by law. It is the duty of the State superintendent of education to apportion all public-school moneys raised by the State as a unit among the several counties in the State in proportion to the number of school children of school age therein—ages 7 to 21. The county board of education shall apportion the funds awarded to their county to the several school districts in their county, so as to provide, as nearly as practicable, school terms of equal duration in such school districts.
Arizona	8 months	Boards of trustees for the districts must maintain all schools for a period of not less than 8 months. (S. L., 1912, p. 28, sec. 54.) After July 1, 1913, no school district, except one newly formed, is entitled to receive any apportionment of State or county school moneys, which has not maintained a public school for at least 8 months during the next preceding school year. A district which is prevented by fire, flood, prevailing epidemic, or other unavoidable circumstances from maintaining a school for the length of time herein designated is nevertheless entitled to its apportionment of State and county school moneys. (S. L., 1912, p. 44, sec. 105.)
Arkansas	3 months	Electors determine amount of money sufficient for a school term of 3 months, provided no tax for school purposes to be greater than seven-tenths of 1 per cent of assessed valuation of all taxable property of the district: Provided further, If sufficient revenue can not be obtained for a 3-months' term they (the electors) may determine by ballot that no school be taught for that year and the revenue accrue for the year following. (Digest of S. L. 1910, p. 115, sec. 7590.) When a county has no high school, the tuition of a pupil is paid in some other public high school when the district is financially able to maintain its schools for at least 6 months during each year. Tuition paid by district $1.50 a month for each pupil. (Supplement to S. L., 1911, p. 31, sec. 10.)
California	6 months	No school district except one newly formed is entitled to receive any apportionment of State or county school moneys which has not maintained a public school for at least 6 months during the next preceding school year. (Exceptions made in case of fire, flood, or epidemics.) (S. L., 1911, p. 178, par. 1859.)
Colorado	6 months	Except that by and with the consent of the county superintendent of schools, school districts in altitudes of 8,000 feet and upward may limit, for climatic reasons, their school term to not less than 4 months. (S. L., 384 [a], sec. 1.)
Connecticut	36 weeks	Public schools shall be maintained for at least 36 weeks in each year in every town and school district. (Conn. School Doc. No. 3, chap. 3, p. 17, par. 40; Gen. Stat., chap. 131, p. 561.)
Delaware	140 days	The school committee shall keep the school open for at least 140 days in each school year. (S. L., 1909, p. 22.) In case any district or school shall fail to employ a teacher or teachers for which money was apportioned for at least 140 days during the succeeding school year, the trustees of the school fund shall deduct out of the apportionment of such district or school for the succeeding year a sum equal to that which such district or school obtained, because of the nonemployment of such teacher.
Florida	4 months	It is the duty of each county board of public instruction to locate and maintain schools in every locality where needed for all the youth between the ages of 6 and 21 years during not less than 4 months in each year. (Digest of School Laws, 1909, p. 18, sec. 35; [Second] G. S., 347.)
Georgia		No minimum school term provided by law. The several county boards of education have full power and authority to regulate the length of the public school terms of their respective counties. (S. L., 1911, p. 18, sec. 11.) Practically all counties in the State have a school term of 5 months. Through local taxation 33 counties add from 1 to 4½ months to this period. In addition, 80 cities and towns and 600 districts, through local taxation, supplement the State funds and have terms varying from 6 to 9½ months.

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Minimum-term regulations in the various States—Continued.

States.	Session.	Minimum term.
Idaho	4 months	At the annual meeting of the board of trustees of the districts (third Monday in April) the length of the school term is decided. It shall not be less than 5 months in a district having less than 20 pupils; nor less than 6 months in districts having between 20 and 75, inclusive; nor less than 9 months in districts having more than 75 pupils. No State funds to be received unless above act complied with. (R. S., 1913, art. 6, p. 27, sec. 54 [d]. School district lapses if district fails to maintain 4 months in a year. (S. L., 1912, art. 5, p. 24, sec. 52 [1].)
Illinois	6 months	Board of directors shall establish and keep in operation for at least 6 months in each year a sufficient number of free schools for the accommodation of all persons in the district over the age of 6 and under 21 years. (S. L., 1912, p. 35, par. 114 [9].) Apportionment of funds by county superintendent depends upon compliance with above. (S. L., 1912, p. 9, par. 14.)
Indiana	6 months	School trustees shall maintain in each school corporation a term of school at least 6 months in duration. Must authorize levy sufficient, providing said levy does not exceed limit provided by law. Donations may be received by school authorities to extend term of school. (S. L., 1911, p. 77, sec. 71.) (R. S., 1908, par. 6411.)
Iowa	24 weeks	Each school regularly established shall continue for at least 24 weeks of 5 school days each, unless the county superintendent should authorize the board to shorten this period when in his judgment there are sufficient reasons for so doing. (S. L., 1912, pp. 58–59, sec. 2773.)
Kansas	7 months	All school districts must maintain a public school for not less than 7 months each school year. Cities of the first and second class must maintain school for a period of not less than 8 months of each school year, the school year beginning Sept. 1 and ending June 1. If full assessment has been made the State and the county are to aid district in making up the amount that is necessary for 7 months' term. Appropriation withheld if above is not complied with in full. (R. S., 1911, pp. 492–493, ch. 268.)
Kentucky	6 months	County board of education has power to distribute the school fund for school purposes, but no school district is entitled to any part of this fund unless it has maintained a school in the district for at least six months. (S. L., 1912, p. 49, par. 137, ch. 10.)
Louisiana		No minimum requirement, except for State approved high schools. These are required to maintain sessions for 180 days.
Maine	30 weeks	Public school must be maintained for at least 30 weeks annually. Any town failing to meet this requirement is debarred from drawing its State school moneys until provisions are made for future maintenance. (S. L., 1915.)
Maryland	9 months[1]	In every schoolhouse district in each county there shall be kept for 10 months in each year, if possible, one or more schools according to population. (S. L., 1912, p. 23, sec. 43.) In any county where schools have been maintained for less than 9 months the comptroller shall withhold from said county the March installament of the State school tax. (S. L., 1912, p. 57, sec. 138. R. S., 1904, ch. 584.)
Massachusetts	32 weeks	Every city and town [township] shall maintain, for at least 32 weeks in each year, a sufficient number of schools for the instruction of all the children who may legally attend a public school therein, except that in towns whose assessed valuation is less than $200,000, the required period may, with the consent of the board of education, be reduced to 28 weeks. (R. S., ch. 42, p. 466, sec. 1.) No town shall receive any part of the income of the Massachusetts School Fund unless it shall have complied, to the satisfaction of the board of education, with all laws relating to the public schools. (Acts, 1904, ch. 107, sec. 1.) Every city and every town containing according to the latest census, State or national, 500 families or householders, shall, and any other town may, maintain a high school, adequately equipped, which shall be kept by a principal and such assistants as may be needed, for at least 40 weeks, exclusive of vacations, in each year. (Revised Laws, ch. 42, sec. 2, p. 466.)

[1] For white children only.

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Minimum-term regulations in the various States—Continued.

States.	Session.	Minimum term.
Michigan	5 months	If any school district shall neglect to maintain a school within its borders as prescribed by law for at least 5 months or neglect to provide for the education of its pupils in another district, it shall be deprived for the ensuing year of its proportion of the primary school interest fund. (Constitution, art. 11, sec. 9, Gen. School Laws [Revision, 1911], p. 6.) Schools with more than 400 children on the census list must have 9 months; with less than 400 and more than 30, 8 months; 30 or less, 5 months.
Minnesota	5 months	No district is entitled to receive any apportionment of school funds of the State that has not had at least 5 months of school term within the year. (Laws of Minnesota relating to school systems, 1911, p. 45, ch. 9, sec. 104.) Exception made in new districts which for first year have provided for 4 months' term and have maintained for 1 month a legal school. (S. L., ch. 9, p. 46, sec. 107.)
Mississippi	4 months	Constitutional provision for at least 4 months in each year. (State constitution, art. 8, secs. 205 and 206.) Mayor and board of aldermen must provide for any levy for more than 4 months provided by State. (S. L., 1912, p. 23, R. S. 4014, 4534.) Municipal and rural separate districts must maintain school at least 7 months each year. (Sec. 4530, Code, 1906.) Any district containing not less than 12 square miles may levy taxes on its property to extend term. (N. B., No. 225, Laws, 1914.)
Missouri	8 months	The board of directors empowered to continue public school or schools in each district for a period of 8 months in each scholastic year, providing maximum levy provided by law has been made and teachers paid maximum salaries for grade of certificates held. Any deficit will be provided for by the State in a sum of not to exceed $100 for each district for each year. Districts must have an area of not less than 6 square miles. (S. L., 1913, sec. 10846.)
Montana	4 months	Schools must be in session not less than 4 months in all districts of the third class (under 1,000 in population). Districts of second class (over 1,000, but less than 8,000) and districts of the first class (over 8,000) must maintain a free public school for at least 8 months in each year. Not entitled to receive any apportionment of school moneys for noncompliance with above provision. (S. L., p. 58, sec. 607.)
Nebraska	4 months	The legal voters shall determine at each annual meeting the length of time a school shall be taught in the district the ensuing year, which shall not be less than 4 months in a district having less than 20 pupils of school age (8 months in districts having between 20 and 75 pupils of school age and 9 months in districts having over 70 pupils of school age), provided school shall be taught in such district for 9 months in the year when the same can be supported by levy of 15 mills on the dollar valuation in such school district, when supplemented by the district apportionment from the State fund, and for at least 8 months in the year by a similar levy of 20 mills supplemented as above. Penalty, withholding State funds. (R. S., secs. 11540 and 11544 [in effect July 16, 1913]. Supp. to S. L., pp. 1 and 2.) State aid is given to weak districts for the purpose of providing at least 7 months' school each year in the first 8 grades. (R. S., sec. 11549, Sups. to School Law, p. 3.)
Nevada	6 months	Duty of school trustees to provide for at least 6 months of free school in each district, must make levy sufficient to support school for this number of months, and, if funds permit, must maintain a school for 8 months. County commissioners shall make the levy sufficient for a 6 months' term in case of failure to do so upon the part of the trustees. (School Code, p. 27, sec. 67 [13].)
New Hampshire	20 weeks	No town shall receive any benefit from the "literary fund" (school fund known as literary fund) unless proper returns have been made to superintendent of public instruction and its schools have been maintained at least 20 weeks during the school year next preceding. (S. L., 1891-1911, p. 9. R. S., ch. 77, par. 7, 1899.) Further aid is provided when towns are under equalized valuation of $7,000 per pupil of average attendance or when population is not in excess of 3,500, nor when tax rate is over $4.50 on each $1,000 valuation or when schools are maintained over 30 weeks for school year. (S. L., 1891-1911, p. 7. R. S., ch. 158, sec. 1, 1909.) High school in a special district must be maintained for at least 34 weeks in each year. (S. L., 1891-1911, p. 18. R. S., ch. 64, par. 1, 1891.)

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Minimum-term regulations in the various States—Continued.

States.	Session.	Minimum term.
New Jersey	9 months	State school tax shall not be apportioned to any district which shall not have maintained a public school for at least 9 months during the preceding school year: *Provided*, That the commissioner of education may, for good cause shown, remit said penalty. (S. L., 1911, p. 24, par. 44.)
New Mexico	5 months	A public school shall be maintained for at least 5 months in each year in every school district. (State constitution, art. 12, p. 28, sec. 4.) (Mention made in Report of State Superintendent, June 15, 1910, p. 28.) Act of first legislature to provide funds to secure minimum number of months (5) by State aid and also for buildings. (Laws of New Mexico, 1913, ch. 74, p. 93, sec. 2.)
New York	180 days	No district shall be entitled to any portion of school moneys unless the report of the trustees for the preceding year (school) shows that a common school was supported in the district and taught by a qualified teacher for at least 180 days, inclusive of legal holidays that may have occurred during the term and exclusive of Saturdays. (Laws of New York, ch. 511, sec. 2, enacted May 14, 1913, amending ch. 21, subdivs. 2 and 4, sec. 492, Laws, 1909; and ch. 140, Laws, 1910.)
North Carolina	4 months*	The county board of commissioners upon estimate of the county board of education are required to levy not to exceed 15 cents on every $100 value of property, real and personal, to secure a term of 4 months; unless this levy is made where necessary for a four months' term no county shall receive any part of the equalizing fund of the State. (S. L., 1913, pp. 8–12.) Law passed same year making equalizing fund greater in order to have 6 months of school, and providing for an annual setting aside of 5 cents of the ad valorem tax levied and collected for State purposes was passed. (S. L., 1913, p. 8, secs. 3 and 4; Laws, 1911, p. 425, par. 109. See Laws, 1911, p. 419, par. 83.)
North Dakota	7 months	The district boards determine and fix the length of the term for the common schools, which shall be keptin session for not less than 7 months in each school year. (Laws of North Dakota, p. 419, par. 83, art. 6, 1911.) Provision for additional school term if a majority of the patrons of any school having 8 or more pupils in daily attendance for its last term shall petition the board to continue such school for that length of time, providing funds are available. (Laws of North Dakota, 1911, p. 420, par. 85, art. 6.)
Ohio	32 weeks	Every elementary day school shall continue not less than 32 nor more than 40 weeks in each school year. (S. L., 1912, ch. 3, sec. 7644. R. S., 4007, p. 97.) A high school of the first grade covers a period of 4 years of 32 weeks each; second grade 3 years of 32 weeks each; third grade 2 years of 28 weeks each. (S. L., 1912, ch. 3, secs. 7652–7654. R. S., 4004–7.)
Oklahoma	3 months	Qualified voters at each annual meeting or at any special meeting duly called fix the length of school term, which shall not be less than 3 months for the ensuing year. (S. L., art. 4, sec. 57, p. 20; R. S., 8057.) The compulsory-attendance law requires pupils to attend school at least 3 months, which may be increased to 6 months by order of the district board.
Oregon	6 months	Districts shall not be entitled to their proportion of the county school fund at the disposal of the county superintendent unless they shall report to him within 15 days after the annual school meeting and shall have had a school taught in their districts at least 6 months in each school year. * * * (Sec. 214, School Laws, 1913.)
Pennsylvania	7 months	Districts of the first and second class must keep school open for at least 9 months (first class dists., pop. 500,000 or over; districts of the second class, pop. 30,000 but under 500,000). Districts of the third class (pop. of 5,000 but under 30,000), for at least 8 months. Districts of the fourth class (pop. of less than 5,000), for at least 7 months. (S. L., 1911, art. 16, p. 85, sec. 1601.)
Rhode Island		No minimum school term provided by law.
South Carolina	3 months	The free public schools of the State shall be kept open in each school district of the State for a period of at least 3 months in each and every school year. (S. L., 1912, p. 29, par. 1782. See Acts S. C., No. 497, p. 924 of 1912, and Acts, 1913, No. 131, p. 194.)
South Dakota	6 months	If any school district fails to hold at least 6 months of school in any school year, no warrant for the amount due from the apportionment fund can be drawn. (S. L., 1911, p. 38, sec. 120.)

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Minimum-term regulations in the various States—Continued.

States.	Session.	Minimum term.
Tennessee	5 months	When the money derived from the permanent school fund and State taxes left in the county treasury is not sufficient to keep up a public school for 5 months in the year in the school districts in the county, the county court shall levy an additional tax sufficient for this purpose, or they may submit this proposition to a vote of the people. (S. L., 1911, p. 29, sec. 39.)
Texas	6 months	Available school funds arising from all sources shall be sufficient to maintain and support the public free schools for a period of not less than 6 months in each year. (Constitutional provision. S. L., p. 1. Constitution, Art. VII, sec. 3.)
Utah	20 weeks	Any district failing to maintain a public school for at least 20 weeks during the year next preceding that in which the apportionment is made, the number of school children shall be subtracted from the total school population of the State and county before making the apportionment. (S. L., 1913, p. 9, sec. 1775 [2].)
Vermont	150 days	The term "legal school" applies to any public school maintained at least 150 days, including holidays and others allowed by law, during any school year. (Act approved Feb. 22, 1913. Laws of Vermont, 1912, par. 76, sec. 1, p. 89.)
Virginia	5 months	No State funds paid to any district for school purposes unless there is filed with the division superintendent a written statement signed by the chairman and clerk of the board of district trustees certifying that school has been kept in operation for 5 months during the current school year. (S. L., 1911, p. 39, sec. 50.)
Washington	6 months	All school districts in this State shall maintain school during at least 6 months each year. (S. L., 1909, p. 32, sec. 94. Laws of Wash., 1909, p. 263, ch. 97, sec. 7.)
West Virginia	6 months	Duty of school officers to fix levy so that a public school shall be maintained for at least 6 months. No school funds can be drawn unless the above provisions are complied with. (Revised S. L., 1911, pp. 18 and 19, sec. 21; p. 31, sec. 42.)
Wisconsin	8 months	At least 8 months, 160 days, of school taught by a legally qualified teacher must be maintained in order that the district may be entitled to share in the apportionment of the State and town school money. (S. L., 1911, p. 253, sec. 560.) Constitutional provision not less than 3 months. (Art. 10, sec. 5. See p. 251, School Law, 1911, sec. 554 [a], p. 254, sec. 560f.)
Wyoming	6 months	Clerk of district certifies to number of teachers, providing that after the year 1913 every teacher for whom credit shall be claimed in such certificate must have been engaged in teaching in said district for at least 6 months during said school year, or in conjunction with a predecessor shall have taught for said period. (S. L., 1913, ch. 52, sec. 1, p. 24.)

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DEPARTMENT OF THE INTERIOR
BUREAU OF EDUCATION

BULLETIN, 1916, No. 43

EDUCATIONAL DIRECTORY
1916–17

WASHINGTON
GOVERNMENT PRINTING OFFICE
1917

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B. W. Torreyson	Supervisor of secondary schools	Do.
California:		
Edward Hyatt	Superintendent of public instruction	Sacramento.
M. G. Hyatt	Deputy superintendent	Do.
Will C. Wood	Assistant superintendent and commissioner of secondary schools.	Do.
Margaret Shallenberger McNaught.	Assistant superintendent and commissioner of elementary schools.	Do.
Edwin R. Snyder	Assistant superintendent and commissioner of vocational and industrial education.	Do.
Canal Zone:		
A. R. Lang	Superintendent of schools	Ancon.
Colorado:		
Mrs. Mary C. C. Bradford	State superintendent of public instruction	Denver.
Alice B. Clark	Deputy State superintendent	Do.
Connecticut:		
Charles D. Hine	Secretary of State board of education	Hartford.
Mrs. Belle H. Johnson	Library visitor	Do.
A. J. Brundage	Supervisor of agriculture	Storrs.
R. A. Storrs	do	Colchester.
E. H. Cameron	High-school inspector	New Haven.
F. J. Trinder	Trade-school supervisor	New Britain.
Delaware:		
Charles A. Wagner	State commissioner of education	Dover.
District of Columbia:		
E. L. Thurston	Superintendent of schools	Washington.
S. E. Kramer	Assistant superintendent	Do.
R. C. Bruce	do	Do.
Florida:		
W. N. Sheats	State superintendent of public instruction	Tallahassee.
R. L. Turner	State inspector of rural schools	Inverness.
Shelton Phillips	do	Williston.
W. S. Cawthon	State high school inspector	Gainesville.
J. C. Compton	Chief clerk	Tallahassee.
B. B. Lane	Statistical clerk	Do.
Georgia:		
M. L. Brittain	State superintendent of schools	Atlanta.
Miss C. S. Parrish	State supervisor of rural schools (North Georgia)	Do.
F. E. Land	State supervisor of rural schools (South Georgia)	Macon.
J. O. Martin	State supervisor of rural schools (Middle Georgia)	Covington.
M. L. Duggan	Rural school agent	Atlanta.

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II.—Principal State School Officers—Continued.

States and officers.	Official designation.	Address.
Georgia—Continued.		
Joseph S. Stewart	State high-school inspector (University of Georgia).	Athens.
J. W. Stephens	State school auditor	Atlanta.
Geo. D. Godard	Special supervisor (for Negroes)	Milner.
Hawaii:		
Henry W. Kinney	Superintendent of public instruction	Honolulu.
Idaho:		
Ethel E. Redfield	State superintendent of public instruction	Boise.
Edward O. Sisson	Commissioner of education	Do.
Illinois:		
Francis G. Blair	State superintendent of public instruction	Springfield.
John Calvin Hanna	High-school inspector	Do.
U. J. Hoffman	State supervisor of country and village schools	Do.
W. S. Booth	....do	Do.
Indiana:		
Charles A. Greathouse	State superintendent of public instruction	Indianapolis.
J. I. Hoffmann	Assistant superintendent	Do.
E. B. Barber	Deputy	Do.
W. F. Book	Deputy in charge of vocational department	Do.
Z. M. Smith	Supervisor of agricultural education	Do.
Adelaide Steele Baylor	Supervisor of domestic science	Do.
J. B. Pearcy	High-school inspector	Do.
E. C. Gullion	Clerk, State board of education	Do.
W. H. Stone	Clerk, State Teachers' Retirement Fund Board	Do.
Iowa:		
A. M. Deyoe	State superintendent of public instruction	Des Moines.
F. D. Joseph	Deputy	Do.
B. W. Headley	Chief clerk	Do.
A. C. Fuller	Inspector normal training in high schools	Do.
J. A. Woodruff	Inspector rural and consolidated schools	Do.
J. L. Cherny	Inspector graded and high schools	Do.
M. R. Fayram	....do	Do.
Kansas:		
W. D. Ross	State superintendent of public instruction	Topeka.
C. E. St. John	Assistant superintendent	Do.
L. D. Whittemore	Secretary State board of education	Do.
C. C. Brown	High-school supervisor	Do.
O. B. Seyster	....do	Do.
Julia M. Stone	Rural-school supervisor	Do.
J. A. Shoemaker	....do	Do.
Kentucky:		
V. O. Gilbert	State superintendent of public instruction	Frankfort.
Paul F. Meagher	Assistant	Do.
Corbett Stephenson	Assistant inspector	Do.
M. F. Pogue	....do	Do.
McHenry Rhoades	State supervisor of high schools	Lexington.
J. V. Chapman	State supervisor of rural schools	Frankfort.
F. C. Button	....do	Do.
Louisiana:		
T. H. Harris	State superintendent of public education	Baton Rouge.
C. A. Ives	High-school inspector	Do.
C. J. Brown	Rural-school supervisor	Do.
C. F. Trudeau	....do	Do.
J. M. Foote	....do	Do.
Leo M. Favrot	Supervisor of negro schools	Do.
P. L. Gilbeau	Supervisor of agricultural schools (State university).	Do.
Jno. R. Conniff	Chairman State teachers' examining committee	Do.
Maine:		
G. W. Starkey	State superintendent of public schools	Augusta.
	Deputy	Do.
Josiah W. Taylor	Agent for secondary education	Do.
H. A. Allan	Agent for rural education	Do.
Florence M. Hale	....do	Do.
A. W. Gordon	General agent for schools in unorganized townships.	Do.
P. H. Smiley	Supervisor of practical arts	Gorham.
Marion C. Ricker	Supervisor of household arts	Farmington.
Maryland:		
M. Bates Stephens	State superintendent of public education	Annapolis.
G. H. Reavis	Assistant State superintendent	Do.
J. E. Metzgar	Supervisor and inspector of secondary agriculture.	Maryland State College.
S. M. North	Supervisor of high schools	Annapolis.
Edward A. Miller	Specialist in rural education	Do.
Katharine Pritchett	Organizer of girls' canning clubs	Do.
Massachusetts:		
Payson Smith	State commissioner of education	Boston.
	Deputy commissioner	Do.
Robert O. Small	....do	Do.
Rufus W. Stimson	Agent	Do.
Charles R. Allen	....do	Do.
Clarence D. Kingsley	....do	Do.
Walter I. Hamilton	....do	Do.
Edward C. Baldwin	....do	Do.
Chester L. Pepper	....do	Do.

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II.—Principal State School Officers—Continued.

States and officers.	Official designation.	Address.
Massachusetts—Continued.		
Francis G. Wadsworth	Agent	Boston.
Miss Nellie M. Wilkins	do	Do.
J. A. Moyer	Director extension division	Do.
R. H. Spahr	Agent extension division	Do.
J. W. L. Hale	do	Do.
C. W. Hobbs	do	Annapolis.
Michigan:		
Fred L. Keeler	State superintendent of public instruction	Lansing.
John M. Munson	Deputy superintendent	Do.
G. N. Otwell	Assistant superintendent	Do.
W. L. Coffey	Rural-school inspector	Do.
Ella M. Smith	County normal supervisor	Do.
Minnesota:		
C. G. Schulz	State superintendent of education	St. Paul.
P. C. Tonning	Assistant	Do.
G. M. Cesander	do	Do.
E. M. Phillips	High-school inspector	Do.
Martha Wilson	Supervisor of school libraries	Do.
Annie E. Shelland	Rural-school supervisor	Do.
S. A. Challman	Commissioner of school buildings	Minneapolis.
R. B. McLean	Graded-school inspector	St. Paul.
C. H. Barnes	Assistant inspector	Do.
H. E. Flynn	do	Do.
E. T. Critchett	Director teachers' employment bureau and secretary of teachers' retirement fund.	Do.
Mabel Carney	Supervisor teachers' training departments	Do.
C. C. Swain	Rural-school commissioner	Do.
Mississippi:		
W. F. Bond	State superintendent of public education	Jackson.
W. N. Taylor	Assistant superintendent of public education	Do.
J. T. Calhoun	State supervisor rural schools	Do.
J. C. Fant	High-school inspector	University.
J. R. Ellis	State supervisor of Negro schools	Jackson.
Missouri:		
Uel W. Lamkin	State superintendent of public schools	Jefferson City.
W. M. Oakerson	Chief clerk	Do.
P. P. Callaway	Teacher-training inspector	Do.
W. N. Sellman	High-school inspector	Do.
F. C. Irion	do	Do.
T. J. Walker	Rural-school inspector	Do.
D. W. Clayton	Statistician	Do.
Montana:		
May Trumper	State superintendent of public instruction	Helena.
H. H. Swain	Deputy	Do.
C. W. Tenney	Rural-school inspector	Do.
Nebraska:		
W. E. Clemmons	State superintendent of public instruction	Lincoln.
Alice C. Stanley	Deputy superintendent of public instruction	Do.
Lulu S. Wolford	Assistant superintendent of public instruction	Do.
R. D. Moritz	Normal-training inspector	Do.
A. V. Teed	Rural-school inspector	Do.
O. P. Stewart	Statistics and measurements	Do.
Nevada:		
John Edwards Bray	State superintendent of public instruction	Carson City.
Bertha C. Knemeyer	Deputy superintendent of public instruction	Elko.
James V. Comerford	do	Ely.
George E. McCracken	do	Fallon.
B. G. Bleasdale	do	Reno.
G. E. Anderson	do	Las Vegas.
New Hampshire:		
H. C. Morrison	State superintendent of public instruction	Concord.
George H. Whitcher	Deputy superintendent of public instruction	Do.
Harriet L. Huntress	do	Do.
E. W. Butterfield	do	Do.
Robert J. Mitchell	Inspector child-labor service	New Market.
John Bishop	do	Do.
F. M. Gunn	Attendance officer	Newport.
New Jersey:		
Calvin N. Kendall	State commissioner of education	Trenton.
John Enright	Deputy commissioner and in charge of hearings in controversies and disputes.	Do.
A. B. Meredith	Assistant commissioner, secondary education	Do.
Zenos E. Scott	Assistant commissioner, elementary education	Do.
Lewis H. Carris	Assistant commissioner, industrial education, including agriculture.	Do.
New Mexico:		
J. Howard Wagner	State superintendent of public instruction	Santa Fe.
Filadelfo Baca	Assistant superintendent of public instruction	Do.
L. C. Mersfelder	State director of industrial education	Do.
W. E. Carroon	Chief clerk	Do.
New York:		
John H. Finley	State commissioner of education	Albany.
Thomas E. Finegan	Deputy commissioner and assistant commissioner for elementary education.	Do.

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II.—Principal State School Officers—Continued.

States and officers.	Official designation.	Address.
New York—Continued.		
Augustus S. Downing	Assistant commissioner for higher education	Albany.
Charles F. Wheelock	Assistant commissioner for secondary education	Do.
James I. Wyer, jr	Director of State library	Do.
John M. Clarke	Director of science and State museum	Do.
George M. Wiley	Chief of administration division	Do.
James D. Sullivan	Chief of attendance division	Do.
William R. Watson	Chief of educational extension division	Do.
Harlan H. Horner	Director of examinations and inspections	Do.
James Sullivan	Director of archives and history division	Do.
Frank H. Wood	Chief of school buildings and grounds	Do.
Frank B. Gilbert	Chief of law division	Do.
Frank K. Walter	Vice director library school	Do.
Sherman Williams	Chief of school libraries division	Do.
Hiram C. Case	Chief of statistics division	Do.
Alfred W. Abrams	Chief of visual instruction division	Do.
Arthur D. Dean	Director of agricultural and industrial education	Do.
North Carolina:		
J. Y. Joyner	State superintendent of public instruction	Raleigh.
L. C. Brogden	State agent for rural schools	Do.
N. C. Newbold	State agent for rural colored schools	Do.
E. E. Sams	Supervisor of teacher training	Do.
N. W. Walker	Inspector of public high schools	Chapel Hill.
T. E. Browne	Agent agricultural extension	Raleigh.
North Dakota:		
N. C. Macdonald	State superintendent of public instruction	Bismarck.
Laura B. Sanderson	Assistant State superintendent	Do.
W. E. Parsons	Deputy	Do.
E. R. Edwards	High-school inspector	Jamestown.
———	State rural-school inspector	Valley City.
Ohio:		
F. B. Pearson	Superintendent of public instruction	Columbus.
J. H. Cook	Assistant superintendent of public instruction	Do.
H. D. Swygert	Statistician	Do.
C. E. Oliver	High-school inspector	Do.
E. F. Warner	....do	Do.
F. C. Landsittel	....do	Do.
W. H. Wiley	....do	Do.
George R. Twiss	....do	Do.
Samuel L. Eby	....do	Do.
Oklahoma:		
Robert H. Wilson	State superintendent of public instruction	Oklahoma City.
E. N. Collette	Assistant superintendent	Do.
Henry J. Miller	Agricultural assistant	Do.
A. C. Parsons	High-school inspector	Do.
E. A. Duke	Rural school inspector	Do.
W. T. Hunt	Chief clerk	Do.
Oregon:		
J. A. Churchill	State superintendent of public instruction	Salem.
E. F. Carleton	Assistant State superintendent	Do.
Frank K. Welles	....do	Do.
N. C. Maris	Field worker in industrial fairs	Do.
L. P. Harrington	....do	Do.
Pennsylvania:		
Nathan C. Schaeffer	State superintendent of public instruction	Harrisburg.
A. D. Glenn	Deputy superintendent	Do.
Reed B. Teitrick	....do	Do.
C. D. Koch	High-school inspector	Do.
Thos. S. March	....do	Do.
W. M. Denison	....do	Do.
James G. Pentz	....do	Do.
M. B. King	Expert for industrial education	Do.
L. H. Dennis	Expert for agricultural education	Do.
Philippine Islands:		
W. W. Marquardt	Director of education	Manila.
Jose Escaler	Assistant director of education	Do.
L. B. Bewley	Second assistant director of education	Do.
Porto Rico:		
Paul G. Miller	Commissioner of education	San Juan.
Wilfred A. Barlow	Assistant commissioner	Do.
Manuel G. Nin	General superintendent	Do.
Jose Padin	....do	Do.
Carey Hickle	....do	Do.
George A. Harriman	Chief, division of property and accounts	Do.
A. Gonzalez Font	Chief, division of school-board accounts	Do.
Rhode Island:		
Walter E. Ranger	Commissioner of public schools	Providence.
Valentine Almy	Assistant commissioner	Do.
South Carolina:		
J. E. Swearingen	State superintendent of education	Columbia.
J. A. Stoddard	Assistant State superintendent	Do.
W. H. Hand	State high-school inspector	Do.
Lueco Gunter	State supervisor of elementary rural schools	Do.
Geo. D. Brown	State supervisor of mill schools	Do.
R. E. Lee	State school architect	Clemson College.

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II.—Principal State School Officers—Continued.

States and officers.	Official designation.	Address.
South Dakota:		
C. H. Lugg	State superintendent of public instruction	Pierre.
Charles T. King	Deputy superintendent	Do.
Tennessee:		
S. W. Sherrill	State superintendent of public instruction	Nashville.
William R. Bourne	State high-school inspector	Do.
J. B. Brown	State elementary-school inspector	Do.
Mrs. Pearl Williams Kelly	State school-library organizer	Do.
S. L. Smith	State rural-school supervisor	Do.
Texas:		
W. F. Doughty	State superintendent of public instruction	Austin.
R. B. Binnion	First assistant State superintendent	Do.
S. H. Whitley	Assistant State superintendent	Do.
Julius F. McDonald	Supervisor of public high schools	Do.
L. V. Stockard	....do	Do.
E. G. Grafton	Division of rural schools	Do.
L. T. Cunningham	Rural-school supervisor	Do.
L. L. Pugh	....do	Do.
N. J. Clancy	Statistician	Do.
Grover Lewis	Auditor	Do.
J. M. Bledsoe	Certificate clerk	Do.
C. A. Jay	Chairman State board of examiners	Do.
W. S. Brandenberger	Secretary State board of examiners	Do.
Walker King	College examiner of State board of examiners	Do.
L. Z. Timmons	Member State board of examiners	Do.
L. E. Dudley	....do	Do.
Utah:		
E. G. Gowans	State superintendent of public instruction	Salt Lake City.
Mosiah Hall	State high-school inspector	Do.
Vermont:		
M. B. Hillegas	Commissioner of education	Montpelier.
Clyde M. Hill	State supervisor of junior high schools	Do.
Virginia:		
R. C. Stearnes	State superintendent of public instruction	Richmond.
W. T. Hodges	Assistant State superintendent	Do.
A. Lucius Lincoln	State school inspector	Do.
Jesse H. Binford	....do	Do.
W. W. Edwards	....do	Do.
E. E. Worrell	....do	Do.
Arthur D. Wright	State inspector for colored schools	Do.
J. H. Montgomery	Executive secretary Cooperative Education Association.	Do.
Washington:		
Mrs. Josephine Preston	State superintendent of public instruction	Olympia.
Arthur Wilson	Assistant superintendent	Do.
Mrs. Addie E. Dickinson	Deputy superintendent	Do.
Edwin Twitmyer	High-school inspector	Seattle.
Mrs. Rose R. Fowler	Secretary State board of examiners	Olympia.
West Virginia:		
M. P. Shawkey	State superintendent of free schools	Charleston.
H. R. Bonner	Assistant State superintendent	Do.
L. L. Friend	Supervisor of high schools	Do.
L. J. Hanifan	Supervisor of rural schools	Do.
Geo. E. Hubbs	Supervisor of examinations	Do.
J. F. Marsh	Secretary of State board of regents	Do.
W. W. Sanders	Assistant supervisor of rural schools (colored)	Do.
Wisconsin:		
C. P. Cary	State superintendent of public schools	Madison.
J. B. Borden	Assistant State superintendent	Do.
C. L. Harper	Second assistant State superintendent	Do.
Janet R. Rankin	School service secretary	Do.
O. S. Rice	Supervisor of school libraries	Do.
W. W. Theisen	Supervisor; director of educational measurements	Do.
Warren E. Hicks	Assistant for industrial education	Do.
H. L. Terry	High-school inspector	Do.
H. N. Goddard	....do	Do.
Emma Conley	Inspector of domestic science	Do.
A. B. Cook	Inspector of schools for the deaf	Do.
J. M. Dorrans	Manual training supervisor and continuation school assistant.	Do.
Geo. H. Drewry	State school inspector	Do.
Walter H. Hunt	....do	Do.
W. T. Anderson	....do	Do.
A. A. Thomson	Inspector of rural schools	Do.
Walter E. Larson	State inspector of rural schools	Do.
Annie Reynolds	Inspector of grades	Do.
Maybelle Bush	....do	Do.
Amy Bronsky	....do	Do.
Wyoming:		
Edith K. O. Clark	State superintendent of public instruction	Cheyenne.
Thomas B. McDonough	Deputy superintendent of public instruction	Do.

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III.—Executive Officers of State Boards of Education.[1]

Officers of the board.	Post-office address.	Other official title.
George W. P. Hunt, chairman	Phoenix, Ariz	Governor.
C. O. Case, secretary	do	State superintendent of public instruction.
George B. Cook, chairman	Little Rock, Ark	Do.
J. W. Kuykendall, secretary	Fort Smith, Ark	
Edward Hyatt, secretary	Sacramento, Cal	Superintendent of public instruction.
Mrs. Mary C. C. Bradford, president	Denver, Colo	Do.
John Ramer, secretary	do	Secretary of state
Fred Farrar	do	Attorney general.
Marcus T. Holcomb, president	Southington, Conn	Governor.
Charles D. Hine, secretary	Hartford, Conn	
Henry Ridgely, chairman	Wilmington, Del	
Frederick Brady, vice president	Middletown, Del	
Charles A. Wagner, secretary	Dover, Del	State commissioner of education.
John Van Schaick, jr., president	Washington, D. C	
H. O. Hine, secretary	do	
Park Trammell, president	Tallahassee, Fla	Governor.
W. N. Sheats, secretary	do	State superintendent of public instruction.
Nat. E. Harris, president	Atlanta, Ga	Governor.
M. L. Brittain, secretary and executive.	do	State superintendent of schools.
H. Harland, chairman	Payette, Idaho	
Evan Evans, secretary	Grangeville, Idaho	
Charles A. Greathouse, president	Indianapolis, Ind	Do.
W. W. Parsons, secretary	Terre Haute, Ind	
D. D. Murphy, president	Elkader, Iowa	
W. H. Gemmill, secretary	Des Moines, Iowa	
W. D. Ross, president	Topeka, Kans	Do.
L. D. Whittemore, secretary	do	
V. O. Gilbert, chairman	Frankfort, Ky	State superintendent of public instruction.
——, president	Baton Rouge, La	Governor.
T. H. Harris, secretary	do	State superintendent of public education.
E. C. Harrington, president	Annapolis, Md	Governor.
M. Bates Stephens, secretary	do	State superintendent of public education.
Frederick P. Fish, chairman	Boston, Mass	
Payson Smith, executive officer	do	State commissioner of education.
Thos. W. Nadal, president	Olivet, Mich	
Fred L. Keeler, secretary	Lansing, Mich	State superintendent of public instruction.
W. F. Bond, president	Jackson, Miss	State superintendent of public education.
J. W. Power, secretary	do	Secretary of state.
Uel W. Lamkin, president	Jefferson City, Mo	State superintendent of public schools.
Cornelius Roach, secretary	do	Secretary of state.
S. V. Stewart, president	Helena, Mont	Governor.
Mary Trumper, secretary	do	State superintendent of public instruction.
Emmet D. Boyle, president	Carson City, Nev	Governor.
John E. Bray, secretary	do	State superintendent of public instruction.
J. S. Frelinghuysen, president	Raritan, N. J	
Calvin N. Kendall, secretary	Trenton, N. J	State commissioner of education.
Wm. C. McDonald, president	Santa Fe, N. Mex	Governor.
J. Harold Wagner, secretary	do	State superintendent of public instruction.
Pliny T. Sexton, chancellor of the university.	Palmyra, N. Y	
John H. Finley, chief executive	Albany, N. Y	President of the university and State commissioner of education.
Locke Craig, president	Raleigh, N. C	Governor.
J. Y. Joyner, secretary	do	State superintendent of public instruction.
N. C. Macdonald, president	Bismarck, N. Dak	Superintendent of public instruction.
W. E. Parsons, secretary	do	Deputy superintendent of public instruction.
R. H. Wilson, chairman	Oklahoma City, Okla	State superintendent of public instruction.
L. T. Huffman, secretary	do	
James Withycomb, president	Salem, Oreg	Governor.
J. A. Churchill, secretary	do	State superintendent of public instruction.
Nathan C. Schaeffer, president	Harrisburg, Pa	Do.
J. George Becht, executive secretary	do	
R. L. Beeckman, president	Newport, R. I	Governor.
Walter E. Ranger, secretary	Providence, R. I	Commissioner of public schools.
Richard I. Manning, chairman	Columbia, S. C	Governor.
J. E. Swearingen, secretary	do	State superintendent of education.

[1] Thirty-eight States have State boards of education, as here indicated; Wisconsin has also a State board of industrial education.

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III.—Executive Officers of State Boards of Education—Continued.

Officers of the board.	Post-office address.	Other official title.
P. L. Harned, president	Clarksville, Tenn.	President of State board of industrial education.
S. W. Sherrill, ex officio secretary	Nashville, Tenn.	State superintendent of public instruction.
James E. Ferguson, president	Austin, Tex.	Governor.
W. F. Doughty, secretary	do.	State superintendent of public instruction.
E. G. Gowans, chairman	Salt Lake City, Utah.	Do.
J. A. Widtsoe, secretary	do.	
R. C. Stearnes, president	Richmond, Va.	Do.
E. R. Chesterman, secretary	do.	
Mrs. Josephine C. Preston, president	Olympia, Wash.	Do.
Arthur Wilson, secretary	do.	Assistant superintendent of public instruction.
M. P. Shawkey, president	Charleston, W. Va.	State superintendent of free schools.
J. D. Garrison, secretary	Middlebourne, W. Va.	
C. P. Cary, president	Madison, Wis.	State superintendent of public instruction.
F. S. Lamb, secretary	do.	
H. E. Miles, president [1]	do.	
F. L. Glynn, secretary	do.	

IV.—Executive Officers of State Library Commissions.[2]

Executive officer.	Post-office address.	Name of commission.
Thomas M. Owen, director	State Capitol, Montgomery, Ala.	State department of archives and history, library extension division.
C. H. Brough, chairman	Fayetteville, Ark.	Arkansas library commission.
James L. Gillis, State librarian	Sacramento, Cal.	California State library.
Chalmers Hadley, president	Public Library, Denver, Colo.	State board of library commissioners.
Carrie M. Cushing, librarian and clerk.	The Capitol, Denver, Colo.	State traveling library commission.
C. D. Hine, chairman	Hartford, Conn.	Connecticut public library committee.
Thomas W. Wilson, secretary	State Library, Dover, Del.	State library commission.
Susie Crumley, organizer	Carnegie Library, Atlanta, Ga.	Do.
Margaret S. Roberts, secretary	State House, Boise, Idaho.	Do.
Anna M. Price, secretary	Springfield, Ill.	Illinois library extension commission.
Henry N. Sanborn, secretary	State House, Indianapolis, Ind.	State public library commission.
Julia A. Robinson, secretary	State Historical Building, Des Moines, Iowa.	State library commission.
Mrs. Adrian Greene, secretary	State Library, Topeka, Kans.	Kansas traveling libraries commission.
Fannie C. Rawson, secretary	Capitol, Frankfort, Ky.	Kentucky library commission.
Henry E. Dunnack, State librarian	State Library, Augusta, Me.	
Bernard C. Steiner, secretary	Enoch Pratt Free Library, Baltimore, Md.	Maryland public library commission.
E. Louise Jones, general secretary and library adviser.	State Library, Boston, Mass.	Massachusetts free public library commission.
Mrs. Mary C. Spencer, secretary	State Library, Lansing, Mich.	State board of library commissioners.
Clara F. Baldwin, secretary	The Capitol, St. Paul, Minn.	State public library commission.
Elizabeth B. Wales, secretary	202 Washington St., Jefferson City, Mo.	Missouri library commission.
Charlotte Templeton, secretary	The Capitol, Lincoln, Nebr.	State public library commission.
Arthur H. Chase, secretary	State Library, Concord, N. H.	Do.
John P. Dullard	25 Dean Ave., Trenton, N. J.	Do.
James I. Wyer, jr., director	Albany, N. Y.	State library.
William R. Watson, chief of division	do.	Division of educational extension, University of the State of New York.
Minnie W. Leatherman, secretary	Raleigh, N. C.	North Carolina library commission
Mrs. Minnie C. Budlong, secretary	Bismarck, N. Dak.	State library commission.
C. B. Galbreath, secretary	State Library, Columbus, Ohio.	State board of library commissioners.

[1] State board of industrial education.
[2] Thirty-seven States have library commissions as here indicated.

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IV.—Executive Officers of State Library Commissions—Continued.

Executive officer.	Post-office address.	Name of commission.
Cornelia Marvin, librarian	Supreme court building, Salem, Oreg.	State library.
T. L. Montgomery, secretary	State Library, Harrisburg, Pa.	Pennsylvania free library commission.
Walter E. Ranger, secretary	State House, Providence, R. I.	State committee on libraries, Rhode Island State education department.
L. A. Spencer, field librarian	State House, Pierre, S. Dak.	State free library commission.
Mrs. Pearl W. Kelley, director	Nashville, Tenn.	Tennessee, department of education, division of library extension.
Ernest W. Winkler, secretary	State Library, Austin, Tex.	State library and historical commission.
Mary E. Downey, State library secretary and organizer.	Salt Lake City, Utah	
Rebecca W. Wright, secretary	34 Elm St., Montpelier, Vt.	State free public library commission.
H. R. McIlwaine, librarian	State Library, Richmond, Va.	Virginia State library.
J. M. Hitt, secretary	State Library, Olympia, Wash.	State library commission.
C. W. Shaffer	State law library	Olympia, Wash.
L. J. Diven	State traveling library	Do.
Matthew S. Dudgeon, secretary	The Capitol, Madison, Wis.	Wisconsin free library commission.

V.—County Superintendents of Schools.[1]

County.	Superintendent.	County.	Superintendent.
ALABAMA.		ALABAMA—contd.	
Autauga	L. E. Byrum, Jones.	Houston	J. M. Odom, Dothan.
Baldwin	J. S. Lambert, Bay Minette.	Jackson	C. S. Brewton, Scottsboro.
Barbour	J. T. Searcy, Clayton.	Jefferson	P. M. McNeil, Birmingham.
Bibb	A. W. Hayes, Centerville.	Lamar	E. R. Harris, Vernon.
Blount	L. J. Weston, Village Springs, R. 2.	Lauderdale	D. O. Warren, Florence.
		Lawrence	W. S. Dill, Moulton.
Bullock	George R. Hall, James.	Lee	J. A. Albright, Opelika.
Butler	C. H. Lewis, Greenville.	Limestone	M. K. Clements, Athens.
Calhoun	H. T. Persons, Anniston.	Lowndes	H. R. Williamson, Hayneville
Chambers	G. M. Barnett, Lafayette.	Macon	W. B. Riley, Tuskegee.
Cherokee	John H. Blair, Center.	Madison	S. R. Butler, Huntsville.
Chilton	Willie T. Bean, Clanton.	Marengo	B. F. Glider, Linden.
Choctaw	W. J. Dansby, Butler.	Marion	H. W. McKenzie, Hamilton.
Clarke	T. L. Head, jr., Grove Hill.	Marshall	R. Lee Barnes, Guntersville.
Clay	W. T. Harwell, Ashland.	Mobile	S. S. Murphy, Mobile.
Cleburne	G. B. Boman, Heflin.	Monroe	J. A. Barnes, Roy.
Coffee	C. H. Byrd, Enterprise.	Montgomery	G. W. Covington, Montgomery.
Colbert	Joe Walker, Tuscumbia.		
Conecuh	R. E. L. Key, Evergreen.	Morgan	J. C. Tidwell, New Decatur.
Coosa	Jef Sox, Rockford, R. F. D. No. 2.	Perry	Chas. C. Johnson, Marion.
		Pickens	J. W. Dowdle, Carrollton.
Covington	H. J. Brogden, Andalusia.	Pike	Mrs. J. M. Sanders, Troy.
Crenshaw	T. A. Capps, Luverne.	Randolph	J. N. Word, Wedowee.
Cullman	D. V. Smith, Cullman.	Russell	F. M. de Graffenried, Seale.
Dale	R. L. Marchman, Pinckard.	Shelby	S. P. Williamson, Sterrett, R. F. D. No. 1.
Dallas	D. M. Callaway, Selma.		
Dekalb	J. Valdor Curtis, Fort Payne.	St. Clair	P. McClendon, Ashville.
Elmore	G. H. Howard, Wetumpka.	Sumter	R. B. Callaway, Cuba.
Escambia	W. S. Neal, Brewton.	Talladega	M. T. Linder, Talladega.
Etowah	S. C. McDaniel, Gadsden.	Tallapoosa	G. L. Bell. Dadeville.
Fayette	Alex. Smith, Fayette.	Tuscaloosa	Perry B. Hughes, Tuscaloosa.
Franklin	T. H. Roberson, Russellville.	Walker	A. S. Scott, Jasper.
Geneva	J. W. Steely, Hartford.	Washington	W. S. Pearce, Healing Springs.
Greene	W. P. Archibald, Knoxville.	Wilcox	Will M. Cook, Camden.
Hale	G. N. Williams, Greensboro.	Winston	J. M. Burns, Double Springs, R. F. D. No. 1.
Henry	E. C. Glover, Abbeville.		

[1] Including, for certain States, district, division, and union superintendents with duties corresponding to those of county superintendents. See State lists for official designation.

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V.—County Superintendents of Schools—Continued.

ALASKA.[1]

District.	Superintendent (schools for natives).	District.	Superintendent (schools for natives).
Northwestern	Walter C. Shields, Nome.	Upper Yukon	George E. Boulter, Tanana.
Do	Walter H. Johnson (assistant), Nome.	Southwestern	Henry O. Schalenben, Seward.
Western	Andrew N. Evans, Unalakleet.	Southeastern	C. W. Hawkesworth, Juneau.

County.	Superintendent.	County.	Superintendent.
ARIZONA.		**ARKANSAS—contd.**	
Apache	J. W. Brown, St. Johns.	Lee	T. A. Futrall, Marianna.
Cochise	Elsie Tales, Tombstone.	Lincoln	W. A. Fish, Star City.*
Coconino	Lenore Frances, Flagstaff.	Little River	D. P. Holmes, Ashdown.*
Gila	Mabry Crozier, Globe.	Logan:	
Graham	S. C. Heywood, Thatcher.	Southern district	G. A. Scott, Booneville.*
Greenlee	Jessie Billingsley, Clifton.	Northern district	Reedy Buzbee, Blaine.*
Maricopa	R. H. Fulton, Phoenix.	Lonoke	E. R. Robinson, Lonoke.
Mohave	Mrs. L. J. Lassell, Kingman.	Madison	W. A. Easterling, Huntsville.*
Navajo	Joseph Peterson, Holbrook.	Marion	Fred Williams, Flippin.*
Pima	Vera Z. Shurts, Tucson.	Miller	John Winham, Texarkana.
Pinal	Lola Le Baron, Florence.	Mississippi	J. D. Swift, Blytheville.
Santa Cruz	Mrs. Josephine Saxon, Nogales.	Monroe	W. H. Laney, Brinkley.
Yavapai	W. Curtis Miller, Prescott.	Montgomery	W. G. Miller, Mount Ida.
Yuma	Nora E. Marrow, Yuma.	Nevada	C. M. Hirst, Prescott.*
ARKANSAS.*		Newton	A. B. Arbaugh, Jasper.
		Ouachita	C. D. Umstead, Stephens.*
Arkansas	J. M. Henderson, DeWitt.	Perry	W. B. Loudermilk, Adona.*
Ashley	Guy E. Smith, Hamburg.*	Phillips	E. M. Pipkin, jr., Helena.*
Baxter	B. A. Spradlin, Mt. Home.*	Pike	J. H. Webb, Delight.*
Benton	W. R. Edwards, Bentonville.	Poinsett	H. B. Thorn, Harrisburg.
Boone	J. W. Nicholson, Capps.*	Polk	W. H. Pigg, Mena.
Bradley	B. L. Herring, Warren.*	Pope	H. A. Rushing, Atkins.*
Calhoun	L. A. Talbot, Harrell.*	Prairie	J. C. Griffin, Hickory Plains.
Carroll	M. L. McCall, Eureka Springs.	Pulaski	R. H. Parham, Little Rock.
Chicot	U. C. Barnett, Dermott.*	Randolph	R. A. Mock, Pocahontas.*
Clark	H. A. Woodward, Arkadelphia.*	Saline	D. M. McCorvey, Haskell.*
Clay:		Scott	Dennis Williams, Waldron.*
Eastern district	W. H. Winston, St. Francis.*	Searcy	J. G. Ferguson, Marshall.*
Western district	N. E. Hicks, Knobel.*	Sebastian	L. M. Redwine, Greenwood.
Cleburne	Fred Moore, Heber Springs.	Sevier	Geo. W. Lewis, Horatio.*
Cleveland	J. P. Snipes, New Edinburg.*	Sharp:	
Columbia	W. A. Jackson, McNeil.*	Northern district	M. A. Kellett, Ashflat.*
Conway	Jas. L. Lucas, Morrilton.*	Southern district	J. W. Taylor, Cave City.*
Craighead	D. T. Rogers, Jonesboro.*	St. Francis	J. M. Wilson, Forrest City.*
Crawford	H. W. Shaffer, Van Buren.	Stone	Trolly T. Hall, Mountain View.*
Crittenden	T. P. Johnson, Earle.	Union	Perry Nelson, El Dorado.*
Cross	S. R. Curtis, Wynne.*	Van Buren	A. J. Powell, Chimes.*
Dallas	J. J. Harrison, Fordyce.*	Washington	W. F. Buck, Fayetteville.*
Desha	L. M. Gary, Duma.*	White	J. W. Henry, Searcy.
Drew	W. C. Cruce, Monticello.*	Woodruff:	
Faulkner	A. A. Parsons, jr., Mt. Vernon.	Northern district	Thos. W. Woodbury, McCrory.*
Franklin:		Southern district	C. C. Hunnicutt, Cotton Plant.*
Ozark district	J. J. Partain, Altus.*	Yell:	
Charleston district	G. L. Ames, Charleston.*	Southern district	M. Sullivant, Danville.*
Fulton	J. G. Albright, Salem.*	Northern district	T. A. Wright, Centerville.*
Garland	D. A. Crockett, Hot Springs.	**CALIFORNIA.**	
Grant	T. Nathan Nall, Sheridan.*		
Greene	W. K. Kelley, Paragould, R. F. D. No. 3.	Alameda	Geo. W. Frick, Oakland.
Hempstead	J. J. Roberts, Hope.	Alpine	Mrs. Josephine Vallem, Sheridan, Nev.
Hot Spring	W. D. Leiper, Malvern.*	Amador	Mrs. Sabra Greenhalgh, Jackson.
Howard	R. H. Kolb, Nashville.*	Butte	Mrs. Pearle Rutherford, Oroville.
Independence	Sidney Pickens, Batesville.*	Calaveras	Teresa Rivara, San Andreas.
Izard	W. E. Schultz, Melbourne.*	Colusa	Perle Sanderson, Colusa.
Jackson	E. H. Bowman, Newport.		
Jefferson	A. W. Lowe, Pine Bluff.		
Johnson	B. M. Riddell, Clarksville.*		
Lafayette	J. F. Bright, Lewisville.*		
Lawrence	R. C. Waldron, Black Rock.*		

[1] District superintendents of schools for natives. * County examiners only.

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V.—County Superintendents of Schools—Continued.

County.	Superintendent.
CALIFORNIA—contd.	
Contra Costa	Wm. H. Hanlon, Martinez.
Del Norte	Jos. M. Hamilton, Crescent City.
Eldorado	S. B. Wilson, Placerville.
Fresno	E. W. Lindsay, Fresno.
Glenn	S. M. Chaney, Willows.
Humboldt	Geo. Underwood, Eureka.
Imperial	A. P. Shibley, El Centro.
Inyo	Mrs. M. A. Clarke, Bishop.
Kern	L. E. Chenoweth, Bakersfield.
Kings	J. E. Meadows, Hanford.
Lake	Minerva Ferguson, Lakeport.
Lassen	F. Brunhouse, Susanville.
Los Angeles	Mark Keppel, Los Angeles.
Madera	Craig Cunningham, Madera.
Marin	Jas. B. Davidson, San Rafael.
Mariposa	John L. Dexter, Mariposa.
Mendocino	Mrs. Anna Porterfield, Ukiah.
Merced	Margaret Sheehy, Merced.
Modoc	Mrs. Nettie B. Harris, Alturas.
Mono	Mrs. A. M. Hays, Bridgeport.
Monterey	Geo. Schultzberg, Salinas.
Napa	Lena A. Jackson, Napa.
Nevada	R. J. Fitzgerald, Nevada City.
Orange	R. P. Mitchell, Santa Ana.
Placer	Irene Burns, Auburn.
Plumas	Mrs. Kate L. Donnelley, Quincy.
Riverside	Raymond Cree, Riverside.
Sacramento	Carolyne M. Webb, Sacramento.
San Benito	W. J. Cagney, Hollister.
San Bernardino	Mrs. Grace C. Stanley, San Bernardino.
San Diego	John F. West, San Diego.
San Francisco	Alfred Roncovieri, San Francisco.
San Joaquin	John W. Anderson, Stockton.
San Luis Obispo	W. S. Wight, San Luis Obispo.
San Mateo	Roy W. Cloud, Redwood City.
Santa Barbara	Mamie V. Lehner, Santa Barbara.
Santa Clara	D. T. Bateman, San Jose.
Santa Cruz	Champ S. Price, Santa Cruz.
Shasta	Mrs. Charlotte Cunningham, Redding.
Sierra	Belle Alexander, Downieville.
Siskiyou	W. H. Parker, Yreka.
Solano	Dan H. White, Fairfield.
Sonoma	Florence M. Barnes, Santa Rosa.
Stanislaus	Frank Bacon, Modesto.
Sutter	Lizzie Vagedes, Yuba City.
Tehama	Mamie B. Lang, Red Bluff.
Trinity	Maude I. Schroter, Weaverville.
Tulare	J. E. Buckman, Visalia.
Tuolumne	G. P. Morgan, Sonora.
Ventura	Jas. E. Reynolds, Ventura.
Yolo	Harriett S. Lee, Woodland.
Yuba	Jennie Malaley, Marysville.
COLORADO.	
Alamosa	Ada Sunquist, Alamosa.
Adams	Helen Lamb, Brighton.
Arapahoe	Clarence E. Eddleblute, Littleton.
Archuleta	J. O. Vermillion, Pagosa Springs.
Baca	Earl C. Denney, Springfield.
Bent	Allie V. Richmond, Las Animas.
Boulder	J. H. Shriber, Boulder.
Chaffee	Mrs. Rose W. Ridgeway, Buena Vista.

County.	Superintendent.
COLORADO—contd.	
Cheyenne	Mrs. Esther B. Weir, Cheyenne Wells.
Clear Creek	Mrs. Elizabeth Gleason, Georgetown.
Conejos	F. O. Soule, Sanford.
Costilla	Luther E. Bean, Blanca.
Crowley	Walter Dalby, Ordway.
Custer	Dr. W. S. Butterbaugh, Westcliffe.
Delta	Mrs. Adah Price, Delta.
Denver	Mrs. Emma G. Seldon, Denver.
Dolores	Mrs. Bessie Custiss, Rico.
Douglas	Mrs. Maude Hoskins, Castle Rock.
Eagle	Ollie Graham, Redcliffe.
Elbert	Nora Deu Pree, Kiowa.
El Paso	Mrs. Inez Johnson Lewis, Colorado Springs.
Fremont	Anna S. Garwood, Canon City.
Garfield	Mrs. Tippett Westerman, Glenwood Springs.
Gilpin	Mrs. Isabelle F. Mabee, Central City.
Grand	Rhea Gallinger, Kremmling.
Gunnison	Luella Johnson, Gunnison.
Hinsdale	Mrs. Alice Harkness, Lake City.
Huerfano	Samuel J. Capps, Walsenburg.
Jackson	Mrs. Minnie Bock, Walden.
Jefferson	Berness Bunger, Golden.
Kiowa	Nellie E. Lytle, Eads.
Kit Carson	Jennie L. Tressel, Burlington.
Lake	Mrs. Marion V. Crispell, Leadville.
La Plata	Florence Salabar, Durango.
Larimer	Emma T. Wilkins, Fort Collins.
Las Animas	Elmore Floyd, Trinidad.
Lincoln	Mrs. Della Winder, Hugo.
Logan	Flora A. Allison, Sterling.
Mesa	Mrs. Elizabeth Hinton, Grand Junction.
Mineral	Mrs. Mary N. Oates, North Creede.
Moffat	George W. Norvell, Craig.
Montezuma	Mrs. Mary E. Taylor, Cortely.
Montrose	Emma Full, Montrose.
Morgan	Mrs. Anna R. White, Fort Morgan.
Otero	S. S. Phillips, La Junta.
Ouray	Alma Brookway, Ouray.
Park	Nettie King, Fairplay.
Phillips	Addie J. Zimmerman, Holyoke.
Pitkin	Ethel Higinbotham, Aspen.
Prowers	Mary Z. Lake, Lamar.
Pueblo	Mrs. Lillie O. Baker, Pueblo.
Rio Blanco	Mrs. Charity Brown Smith, Meeker.
Rio Grande	Charles E. Hart, Monte Vista.
Routt	Mrs. Emma H. Peck, Hayden.
Saguache	S. E. Forbes, Saguache
San Juan	Mrs. Harriet E. Keyser, Silverton.
San Miguel	Bertha L. Cameron, Telluride.
Sedgwick	Besse Law, Julesburg.
Summit	Jane Torkington, Breckenridge.
Teller	Mrs. Josephine B. Mays, Cripple Creek.
Washington	Mrs. Rose Bachman, Akron.
Weld	A. B. Copeland, Greeley.
Yuma	Clara Tegner, Wray.

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V.—County Superintendents of Schools—Continued.

Towns.	Supervising agents.[1]
CONNECTICUT.[2]	
Cheshire, North Haven.	Dewitt C. Allen, Montowese.
Woodstock	Frank W. Barber, 20 Fremont Street, Putnam.
Barkhamsted, Colebrook, Hartland.	Wm. H. Bliss, Park Hotel, Winsted.
Ashford, Canterbury, Eastford, Union.	Norman J. Bond, 30 Windham Street, Willimantic.
Morris, Roxbury, Southbury, Woodbury.	Edward S. Boyd, Woodbury.
Bethlehem	Leslie K. Chance, Watertown.
Suffield	Harold B. Chapman, Suffield, box 7.
Goshen, Harwinton, Middlebury, New Hartford.	Harold E. Chittenden, 50 Holley Place, Torrington.
Franklin, Mansfield, Pomfret.	Frank W. Clapp, 154 Pleasant Street, Willimantic.
Saybrook	Herbert O. Clough, West Hartford.
Cromwell, Durham, East Hampton Marlboro, Middlefield.	James F. Connolly, 56 High Farm Hill, Middletown.
East Granby	Wilson S. Dakin, 31 Norfolk Street, Hartford.
Berlin, Madison, North Branford.	Joseph W. Dows, 331 Temple Street, New Haven.
Chester	Robert E. Foote, Chester.
Columbia, Lebanon, Scotland, Tolland, Willington.	Levi T. Garrison, 17 Godfrey Street, Willimantic.
Easton, Monroe, Weston, Wilton.	D. Albert Green, 15 Maple Street, Norwalk.
Bridgewater, Kent, Sherman, Washington.	Wendell P. Holman, Wayside Inn, New Milford.
Beacon Falls, Bethany, Oxford, Prospect, Wolcott.	Wm. H. Holmes, 494 Watertown Avenue, Waterbury.
Coventry	E. Ward Ireland, Y. M. C. A., Hartford.
Hampton	N. Searle Light, 138 Edgewood Street, Hartford.
Brookfield, New Fairfield, Redding.	Otis Earle Lowell, R. F. D. 41, Georgetown.
Avon, Burlington, Farmington.	Lewis S. Mills, 58 East Main Street, Plainville.
Portland, Rocky Hill, Wethersfield.	Wm. E. Parker, Spring Street Portland.
Bolton, Ellington, Somers.	Arthur N. Potter, 146 Church Street, Willimantic.
Haddam, Killingworth, Lyme, Old Lyme.	Fred W. Shearer, Lyme.
Thomaston	E. W. Small, Thomaston.
Cornwall, North Canaan, Sharon, Warren.	Edwin B. Stone, Canaan.
Essex, Ledyard, Preston.	Gordon C. Swift, Y. M. C. A., Hartford.
Bloomfield, Canton, Granby.	Fred L. Tapley, 399 Sigourney Street, Hartford.
Canaan, Salisbury	Charles L. Warner, Salisbury.
East Lyme, Montville, Waterford.	Carlon E. Wheeler, 63 Lincoln Avenue, New London.
Lisbon, Sprague, Sterling, Voluntown.	Arthur L. Young, 92 River Avenue, Norwich.
Bozrah, Hebron, Salem.	John A. Young, South Main Street, Colchester.
Mansfield	A. J. Brundage, Storrs.
Lebanon	Richard A. Storrs, Colchester.

County.	Superintendent.
DELAWARE.	
Kent	James E. Carroll, Dover.
Newcastle	Elmer L. Cross, New Castle.
Sussex	Ernest J. Hardesty, Seaford.
FLORIDA.	
Alachua	J. L. Kelley, Gainesville.
Baker	W. A. Dopson, Macclenny.
Bay	E. L. Brigman, Panama City.
Bradford	F. G. Schell, Lake Butler.
Brevard	E. E. Macey, Eau Gallie.
Broward	J. M. Holding, Fort Lauderdale.
Calhoun	J. Flake Durham, Blountstown.
Citrus	H. J. Dane, Inverness.
Clay	W. H. Biggs, Green Cove Springs.
Columbia	J. W. Burns, Lake City.
Dade	R. E. Hall, Miami.
De Soto	J. O. Bickley, Arcadia.
Duval	F. A. Hathaway, Jacksonville.
Escambia	A. S. Edwards, Pensacola.
Franklin	A. A. Core, Apalachicola.
Gadsden	C. H. Gray, Quincy.
Hamilton	J. A. Jackson, Jasper.
Hernando	W. A. Thaxton, Brooksville.
Hillsboro	Marshall Moore, Tampa.
Holmes	T. J. McDade, Bonifay.
Jackson	Charles B. King, Marianna.
Jefferson	S. H. Taylor, Monticello.
Lafayette	G. N. Trawick, Mayo.
Lake	W. T. Kennedy, Umatilla.
Lee	J. W. Sherrill, Fort Myers.
Leon	H. H. Isler, Tallahassee.
FLORIDA—contd.	
Levy	Thomas W. Price, Bronson.
Liberty	J. E. Roberts, Bristol.
Madison	G. W. Tedder, Madison.
Manatee	W. M. Rowlett, Bradentown.
Marion	J. H. Brinson, Ocala.
Monroe	Virgil S. Lowe, Key West.
Nassau	L. L. Owens, Evergreen.
Orange	J. F. McKinnon, Orlando.
Osceola	C. E. Yowell, Kissimmee.
Oskaloosa	Will C. Pryor, Milligan.
Palm Beach	H. W. Lewis, West Palm Beach.
Pasco	J. W. Sanders, Dade City.
Pinellas	Dixie M. Hollins, Clearwater.
Polk	Chester A. Parker, Bartow.
Putnam	J. D. Cottingham, Palatka.
St. John	D. D. Corbett, St. Augustine.
St. Lucie	J. W. Hodge, Viking.
Santa Rosa	J. D. Smith, jr., Milton.
Seminole	D. L. Thrasher, Sanford.
Sumter	G. H. Tompkins, Wildwood.
Suwanee	J. W. O'Hara, Live Oak.
Taylor	Festus S. Jackson, Perry.
Volusia	C. R. M. Sheppard, De Land.
Wakulla	C. K. Allen, Sopchoppy.
Walton	Dan N. Trotman, De Funiak Springs.
Washington	W. T. Horne, Vernon.
GEORGIA.	
Appling	H. J. Parker, Baxley.
Bacon	Geo. A. Taylor, Alma.
Baker	J. H. Hall, Newton.
Baldwin	Edward Tigner, Milledgeville.

[1] Having supervision over union supervisory districts composed of towns given.
[2] Practically all city superintendents have some rural schools. See list, p. 46.

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V.—County Superintendents of Schools—Continued.

County.	Superintendent.
GEORGIA—contd.	
Banks	J. T. Wise, Baldwin.
Barrow	W. M. Holsenbeck, Winder.
Bartow	Henry Milam, Cartersville.
Ben Hill	R. J. Prentiss, Fitzgerald.
Berrien	W. G. Avera, Nashville.
Bibb	C. H. Bruce, Macon.
Bleckley	I. A. Willis, Cochran.
Brooks	John F. McCall, Quitman.
Bryan	Edward Benton, Pembroke.
Bulloch	B. R. Olliff, Statesboro.
Burke	E. B. Gresham, Waynesboro.
Butts	Hugh Mallet, Jackson.
Calhoun	B. W. Fortson, Arlington.
Camden	T. E. Casey, St. Marys.
Campbell	W. H. McLarin, Fairburn.
Candler	A. H. Stapler, Metter.
Carroll	E. T. Steed, Carrollton.
Catoosa	Ansel M. Bandy, Ringgold.
Charlton	L. E. Mallard, Folkston.
Chatham	Otis Ashmore, Savannah.
Chattahoochee	C. N. Howard, Cusseta.
Chattooga	S. E. Jones, Summerville.
Cherokee	T. A. Doss, Canton.
Clarke	T. H. Dozier, Athens.
Clay	E. R. King, Fort Gaines.
Clayton	J. H. Huie, Forest Park.
Clinch	M. A. Cornelius, Homerville.
Cobb	Bernard Awtrey, Marietta.
Coffee	J. Gordon Floyd, Douglas.
Colquitt	Lee S. Dismuke, Moultrie.
Columbia	J. L. Weeks, Appling.
Coweta	J. E. Pendergrast, Newnan.
Crawford	J. N. Andrews, Roberta.
Crisp	J. W. Bivins, Cordele.
Dade	S. J. Hale, Trenton.
Dawson	A. W. Vandiviere, Dawsonville.
Decatur	J. S. Bradwell, Bainbridge.
Dekalb	R. E. Carroll, Decatur.
Dodge	M. W. Harrell, Eastman.
Dooly	E. G. Greene, Vienna.
Dougherty	R. H. Warren, Albany.
Douglas	G. T. McLarty, Douglasville.
Early	E. A. Evans, Blakely.
Echols	J. G. Prine, Statenville.
Effingham	A. E. Byrd, Guyton.
Elbert	T. J. Cleveland, Elberton.
Emanuel	Robert E. Rountree, Swainsboro.
Evans	R. M. Girardeau, Claxton.
Fannin	J. W. Hughes, Blue Ridge.
Fayette	W. N. D. Dixon, Fayetteville.
Floyd	J. C. King, Rome.
Forsyth	C. L. Harris, Cumming.
Franklin	J. W. McFarland, Carnesville.
Fulton	J. W. Simmons, Atlanta.
Gilmer	J. S. Hudson, Ellijay.
Glascock	E. B. Rogers, Gibson.
Glynn	N. H. Ballard, Brunswick.
Gordon	Ernest Dillard, Calhoun.
Grady	J. S. Weathers, Cairo.
Greene	W. A. Purks, White Plains.
Gwinnett	C. R. Ware, Lawrenceville.
Habersham	P. R. Ivie, Clarkesville.
Hall	J. D. Underwood, Gainesville.
Hancock	C. W. Moran, Sparta.
Haralson	John W. White, Buchanan.
Harris	Tom Wisdom, Chipley.
Hart	W. B. Morris, Hartwell.
Heard	Hope H. Cook, Cooksville.
Henry	R. O. Jackson, McDonough.
Houston	F. M. Greene, Perry.
Irwin	J. W. Weaver, Ocilla.
Jackson	L. F. Elrod, Jefferson.
Jasper	J. M. Elizer, Monticello.
Jeff Davis	A. B. Hursey, Hazlehurst.
Jefferson	H. E. Smith, Bartow.
Jenkins	W. V. Lanier, Millen.
Johnson	R.L. Sumner, Wrightsville.
Jones	E. W. Sammons, Gray.
Laurens	Z. Whitehurst, Dublin.
Lee	S. J. Powell, Smithville.
Liberty	E. B. Way, Flemington.
Lincoln	Dr. W. B. Crawford, Lincolnton.
Lowndes	J. H. O'Quinn, Valdosta.
Lumpkin	J. J. Seabolt, Dahlonega.
Macon	J. P. Nelson, Oglethorpe.
Madison	J. A. Griffith, Danielsville.
Marion	T. B. Rainey, Buena Vista.
McDuffie	M. W. Dunn, Thomson.
McIntosh	W. A. Branson, Darien.
Meriwether	W. S. Howell, Greenville.
Miller	B. B. Bush, Colquitt.
Milton	Wm. Rhodes, Alpharetta.
Mitchell	G. E. West, Camilla.
Monroe	T. H. Phinazee, Forsyth.
Montgomery	A. B. Hutcheson, Mount Vernon.
Morgan	E. S. Bird, Madison.
Murray	R. Noel Steed, Spring Place.
Muscogee	J. L. Bond, Columbus.
Newton	G. C. Adams, Covington.
Oconee	J. M. McRee, Watkinsville.
Oglethorpe	M. S. Weaver, Lexington.
Paulding	C. A. Roberts, Dallas.
Pickens	C. H. Cox, Jasper.
Pierce	R. D. Thomas, Blackshear.
Pike	G. B. Ridley, Zebulon.
Polk	John W. Sutton, Cedartown.
Pulaski	F. B. Asbell, Hawkinsville.
Putnam	W. C. Wright, Eatonton.
Quitman	H. M. Kaigler, Georgetown.
Rabun	L. M. Chastain, Burton.
Randolph	Walter McMichael, Cuthbert.
Richmond	Lawton B. Evans, Augusta.
Rockdale	G. W. Crumbley, Conyers.
Schley	E. L. Bridges, Ellaville.
Screven	H. J. Arnett, Sylvania.
Spalding	J. O. A. Miller, Pomona.
Stephens	J. I. Allman, Toccoa.
Stewart	W. T. Halliday, Lumpkin.
Sumter	W. S. Moore, Americus.
Talbot	H. P. Hewitt, Talbotton.
Taliaferro	W. R. Moore, Sharon.
Tattnall	I. S. Smith, Reidsville.
Taylor	A. S. Wallace, Butler.
Telfair	T. P. Windsor, McRae.
Terrell	J. W. F. Lowrey, Dawson.
Thomas	J. S. Searcy, Thomasville.
Tift	R. F. Kersey, Tifton.
Toombs	G. C. Brantley, Lyons.
Towns	R. A. Kimsey, Hiawassee.
Troup	J. B. Strong, Lagrange.
Turner	Judson Johnson, Rebecca.
Twiggs	B. S. Fitzpatrick, Fitzpatrick.
Union	T. L. Patterson, Blairsville.
Upson	J. A. Thurston, Thomaston.
Walker	R. D. Love, La Fayette.
Walton	R. L. Paine, Social Circle.
Ware	Charles Pittman, Waycross.
Warren	R. W. Ware, Camak.
Washington	J. C. Harman, Sandersville.
Wayne	B. D. Purcell, Jesup.
Webster	J. F. Souter, Preston.
Wheeler	J. R. Auld, Erick.
White	T. V. Cantrell, jr., Cleveland.
Whitfield	J. C. Sapp, Dalton.
Wilcox	E. S. Hamilton, Abbeville.
Wilkes	C. H. Calhoun, Washington.
Wilkinson	J. H. Hoover, Irwinton.
Worth	Walter R. Sumner, Sylvester.
IDAHO.	
Ada	Ivy M. Wilson, Boise.
Adams	E. T. Lakin, Council.
Bannock	Bertha L. Atkin, Pocatello.
Bear Lake	Alfred A. Hart, Paris.

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V.—County Superintendents of Schools—Continued.

County.	Superintendent.
IDAHO—continued.	
Benewah	Ruth E. Gerhart, St. Maries.
Bingham	Mrs. Lula E. Smith, Blackfoot.
Blaine	Frances Mills, Hailey.
Boise	Helen Wilson, Idaho City.
Bonner	J. W. Ramsey, Sandpoint.
Bonneville	Ella M. Miller, Idaho Falls.
Boundary	Margaret Moore, Bonners Ferry.
Canyon	Z. Fay Fowler, Caldwell.
Cassia	Mae Lowe, Albion.
Clearwater	Mrs. Mayme Fisher, Orofino.
Custer	Jennie E. Kelleher, Challis.
Elmore	Leora H. Lockman, Mountain Home.
Franklin	Henry Simpson, Preston.
Fremont	Harriet C. Wood, St. Anthony.
Gem	Miss Alice Halvorson, Emmett.
Gooding	Myrtle Journey, Gooding.
Idaho	John J. Staley, Grangeville.
Jefferson	Willard S. Burton, Rigby.
Kootenai	R. C. Egbers, Coeur d'Alene.
Latah	Catherine T. Bryden, Moscow.
Lemhi	Mrs. Clara A. Diggles, Salmon.
Lewis	Retta F. Martin, Nez Perce.
Lincoln	Stella Cook, Shoshone.
Madison	A. F. Rasmussen, Rexburg.
Minidoka	Mrs. Ida E. Sullivan, Rupert.
Nez Perce	——, Lewiston.
Oneida	James C. Tovey, Malad.
Owyhee	Mrs. Margaret Hurless, Silver City.
Power	Madge E. Whistler, American Falls.
Shoshone	Florence M. Zumhof, Wallace.
Teton	Ezra C. Dalby, Driggs.
Twin Falls	Bertha Noel, Twin Falls.
Washington	Edna Lockwood, Weiser.
ILLINOIS.	
Adams	John H. Steiner, Quincy.
Alexander	Laura I. Milford, Cairo.
Bond	William E. White, Greenville.
Boone	Elizabeth B. Harvey, Belvidere.
Brown	C. W. Sellars, Mount Sterling.
Bureau	G. O. Smith, Princeton.
Calhoun	S. J. Sibley, Hardin.
Carroll	John Hay, Mount Carroll.
Cass	Walter E. Buck, Virginia.
Champaign	Charles H. Watts, Urbana.
Christian	H. L. Fowkes, Taylorville.
Clark	Harold Bright, Marshall.
Clay	G. O. Lewis, Louisville.
Clinton	Wm. Johnston, Carlyle.
Coles	O. L. Minter, Charleston.
Cook	E. J. Tobin, Chicago (C. H.).
Crawford	James T. Athey, Robinson.
Cumberland	L. C. Markwell, Toledo.
Dekalb	W. W. Coultas, Sycamore.
Dewitt	John L. Costley, Clinton.
Douglas	E. E. Gere, Tuscola.
Dupage	R. T. Morgan, Wheaton.
Edgar	O. Rice Jones, Paris.
Edwards	Grant Balding, Albion.
Effingham	J. W. Davis, Effingham.
Fayette	F. E. Crawford, Vandalia.
Ford	H. M. Rudolph, Paxton.
Franklin	H. Clay Ing, Benton.
Fulton	M. M. Cook, Lewiston.
Gallatin	J. L. Greenlee, Equality.
Greene	Rollins L. Scott, Carrollton.
Grundy	C. H. Root, Morris.
Hamilton	W. W. Daily, McLeansboro.
Hancock	S. D. Faris, Carthage.
Hardin	Hattie M. Rittenhouse, Elizabethtown.
ILLINOIS—contd.	
Henderson	Allen L. Beall, Oquawka.
Henry	A. L. Odenweller, Cambridge.
Iroquois	F. A. Gilbreath, Watseka.
Jackson	Otto F. Aken, Murphysboro.
Jasper	E. B. Brooks, Newton.
Jefferson	Charles F. Lee, Mount Vernon
Jersey	Joseph W. Becker, Jerseyville.
Jo-Daviess	B. L. Birkbeck, Galena.
Johnson	Emma Rebman, Vienna.
Kane	E. A. Ellis, Geneva.
Kankakee	S. D. Saltzgiver, Kankakee.
Kendall	George Elliott, Bristol.
Knox	W. F. Boyes, Galesburg.
Lake	T. A. Simpson, Waukegan.
La Salle	W. R. Foster, Ottawa.
Lawrence	Ed. Aahbaugh, Lawrenceville.
Lee	L. W. Miller, Dixon.
Livingston	W. E. Herbert, Pontiac.
Logan	E. H. Lukenbill, Lincoln.
Macon	Mary W. Moore, Decatur.
Macoupin	George W. Solomon, Carlinville.
Madison	H. T. McCrea, Edwardsville.
Marion	M. A. Thrasher, Salem.
Marshall	E. P. Nichols, Lacon.
Mason	John Mehlhop, Havana.
Massac	W. A. Spence, Metropolis.
McDonough	B. E. Decker, Macomb.
McHenry	A. M. Shelton, Crystal Lake.
McLean	B. C. Moore, Bloomington.
Menard	Mrs. E. B. Batterton, Petersburg.
Mercer	C. L. Gregory, Aledo.
Monroe	William C. Heyl, Waterloo.
Montgomery	Everett A. Lewey, Hillsboro.
Morgan	H. H. Vasconcellos, Jacksonville.
Moultrie	V. D. Roughton, Sullivan.
Ogle	J. E. Cross, Oregon.
Peoria	J. A. Hayes, Peoria.
Perry	Elmo W. Lee, Pinckneyville.
Piatt	Chas. McIntosh, Monticello.
Pike	John N. Clark, Pittsfield.
Pope	R. R. Randolph, Golconda.
Pulaski	May S. Hawkins, Mound City.
Putnam	W. A. Paxson, Hennepin.
Randolph	L. W. Von Behren, Evansville.
Richland	Elmer Van Arsdall, Olney.
Rock Island	Lou M. Harris, Rock Island.
Saline	B. D. Gates, Harrisburg.
Sangamon	E. C. Pruitt, Springfield.
Schuyler	Calvin L. Cain, Rushville.
Scott	John P. Ward, Winchester.
Shelby	Lee W. Frazer, Shelbyville.
Stark	G. C. Baker, Toulon.
St. Clair	W. A. Hough, Belleville.
Stephenson	Cyrus Grove, Freeport.
Tazewell	Ben L. Smith, Pekin.
Union	Charles O. Otrich, Jonesboro.
Vermilion	Otis P. Haworth, Danville.
Wabash	W. H. Wetzel, Mount Carmel.
Warren	J. D. Regan, Monmouth.
Washington	Lee A. Friend, Nashville.
Wayne	J. B. Galbraith, Fairfield.
White	Charles H. Mossberger, Carmi.
Whiteside	H. B. Price, Morrison.
Will	F. M. Muhley, Joliet.
Williamson	J. W. McKinney, Marion.
Winnebago	Mrs. Abbie Jewett Craig, Rockford.
Woodford	Roy L. Moore, Eureka.
INDIANA.	
Adams	E. S. Christen, Decatur.
Allen	D. O. McComb, Fort Wayne.
Bartholomew	Samuel Sharp, Columbus.
Benton	C. H. Dodson, Fowler.

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V.—County Superintendents of Schools—Continued.

County.	Superintendent.
INDIANA—contd.	
Blackford	M. C. Townsend, Hartford City.
Boone	E. M. Servies, Lebanon.
Brown	Sylvester Barnes, Nashville.
Carroll	P. B. Hemmig, Delphi.
Cass	A. L. Frantz, Logansport.
Clark	Saml. L. Scott, Jeffersonville.
Clay	Willis E. Akre, Brazil.
Clinton	M. W. Salmon, Frankfort.
Crawford	Stuart A. Beals, English.
Daviess	A. O. Fulkerson, Washington.
Dearborn	Geo. C. Cole, Lawrenceburg.
Decatur	Frank C. Fields, Greensburg.
Dekalb	Lida Leasure, Auburn.
Delaware	Ernest J. Black, Muncie.
Dubois	William Melchior, Jasper.
Elkhart	A. E. Weaver, Goshen.
Fayette	C. L. Trusler, Connersville.
Floyd	Glenn V. Scott, New Albany.
Fountain	M. F. Livengood, Covington.
Franklin	T. J. McCarty, Brookville.
Fulton	Henry L. Becker, Rochester.
Gibson	Wilbur F. Fisher, Princeton.
Grant	Charles H. Terrell, Marion.
Greene	D. C. McIntosh, Worthington.
Hamilton	Walter Harger, Noblesville.
Hancock	G. J. Richman, Greenfield.
Harrison	A. O. Deweese, Corydon.
Hendricks	Theo. T. Martin, Danville.
Henry	H. B. Roberts, Newcastle.
Howard	Albert F. Hutson, Kokomo.
Huntington	C. Funderburg, Huntington.
Jackson	J. E. Payne, Brownstown.
Jasper	Ernest Lamson, Rensselaer.
Jay	W. R. Armstrong, Portland.
Jefferson	Joseph H. Hanna, Madison.
Jennings	S. E. Whitcomb, Vernon.
Johnson	W. J. Yount, Franklin.
Knox	E. N. Haskins, Vincennes.
Kosciusko	Jesse Bruner, Warsaw.
Lagrange	F. G. Smeltzly, Lagrange.
Lake	F. F. Heighway, Crown Point.
Laporte	Fred R. Farnam, Laporte.
Lawrence	L. B. Sanders, Mitchell.
Madison	J. W. Frazier, Anderson.
Marion	Lee E. Swails, Indianapolis.
Marshall	L. E. Steinebach, Plymouth.
Martin	C. O. Williams, Shoals.
Miami	E. B. Wetherow, Peru.
Monroe	W. H. Jones, Bloomington.
Montgomery	Karl C. James, Crawfordsville.
Morgan	W. D. Curtis, Martinsville.
Newton	W. O. Schanlaub, Kentland.
Noble	C. V. Kilgore, Albion.
Ohio	C. H. French, Rising Sun.
Orange	C. E. Cogswell, Paoli.
Owen	Albert Free, Spencer.
Parke	H. J. Skeeters, Rockville.
Perry	Lee B. Mullen, Cannelton.
Pike	Andrew Jewell, Petersburg.
Porter	Fred H. Cole, Valparaiso.
Posey	G. E. Behrens, Mount Vernon.
Pulaski	H. L. Rogers, Winamac.
Putnam	L. G. Wright, Greencastle.
Randolph	Lee L. Driver, Winchester.
Ripley	C. R. Hertenstein, Versailles.
Rush	C. M. George, Rushville.
Scott	W. S. Griffith, Scottsburg.
Shelby	W. Everson, Shelbyville.
Spencer	J. W. Strassell, Rockport.
Starke	C. W. Cannon, Knox.
St. Joseph	Ralph Longfield, South Bend.
Steuben	H. Lyle Shank, Angola.
Sullivan	Richard Park, Sullivan.
Switzerland	O. M. Given, Florence.
Tippecanoe	Brainard Hooker, La Fayette.
Tipton	L. D. Summers, Tipton.
Union	Chas. C. Abernathy, Liberty.
Vanderburg	K. W. Hemmer, Evansville.
Vermilion	R. H. Valentine, Newport.
Vigo	J. M. Propst, Terre Haute.
Wabash	R. K. Devricks, Wabash.
Warren	Harry Evans, Williamsport.
Warrick	A. J. Hopkins, Boonville.
Washington	Orra Hopper, Salem.
Wayne	C. O. Williams, Richmond.
Wells	A. R. Huyette, Bluffton.
White	Henry J. Reid, Monticello.
Whitley	A. R. Fleck, Columbia City.
IOWA.	
Adair	Mrs. Minerva Whittum, Greenfield.
Adams	Mary C. Larson, Corning.
Allamakee	W. L. Peck, Waukon.
Appanoose	Janet Wilson, Centerville.
Audubon	Ella M. Stearns, Audubon.
Benton	Linnie E. Schloemann, Vinton.
Black Hawk	H. C. Moeller, Waterloo.
Boone	Gracia E. Tucker, Boone.
Bremer	May E. Francis, Waverly.
Buchanan	A. E. Jewett, Independence.
Buena Vista	A. E. Harrison, Storm Lake.
Butler	Benjamin Boardman, Allison.
Calhoun	Jeanette Lewis, Rockwell City.
Carroll	George Galloway, Carroll.
Cass	Jennie M. Ward, Atlantic.
Cedar	Mildred R. Yule, Tipton.
Cerro Gordo	Fred D. Cram, Mason City.
Cherokee	Lewis McDonald, Cherokee.
Chickasaw	Esther Swenumson, New Hampton.
Clarke	Beasie Hart, Osceola.
Clay	D. M. Odle, Spencer.
Clayton	Carl F. Becker, Elkader.
Clinton	C. E. Cozzens, Clinton.
Crawford	F. N. Olry, Denison.
Dallas	Carolyn F. Forgrave, Adel.
Davis	Agnes McConnell, Bloomfield.
Decatur	Mabel Horner, Leon.
Delaware	F. P. Walker, Manchester.
Des Moines	Theresa Tiedemann, Burlington.
Dickinson	Jennie R. Bailey, Spirit Lake.
Dubuque	Philip J. Flynn, Dubuque.
Emmet	Ida A. Davis, Estherville.
Fayette	Mrs. Belle Thorp-Ocker, West Union.
Floyd	Mary D. Korinke, Charles City.
Franklin	Harry J. Henderson, Hampton.
Fremont	Mabel B. Jones, Sidney.
Greene	H. C. Roelofsz, Jefferson.
Grundy	D. R. Earl, Grundy Center.
Guthrie	O. G. Hamilton, Guthrie Center.
Hamilton	E. F. Snow, Webster City.
Hancock	J. R. Baggs, Garner.
Hardin	Blanche Stoddard, Eldora.
Harrison	Susie T. Faith, Logan.
Henry	Carolyn Campbell, Mount Pleasant.
Howard	Zina Fassenden, Cresco.
Humboldt	Clarence Messer, Humboldt.
Ida	Wilson Jones, Ida Grove.
Iowa	G. A. Yoakam, Marengo.
Jackson	E. R. Stoddard, Maquoketa.
Jasper	Olive Shriner, Newton.
Jefferson	June Chidester, Fairfield.
Johnson	N. E. Hessenius, Iowa City.
Jones	Kate Maurice, Anamosa.
Keokuk	Harry S. McVicker, Sigourney.
Kossuth	Wm. Shirley, Algona.
Lee	E. C. Lynn, Donnellson.
Linn	A. B. Alderman, Marion.
Louisa	Izola M. Sweeney, Wapello.
Lucas	Myrtle A. Dungan, Chariton.
Lyon	E. T. Gilman, Rock Rapids.

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V.—County Superintendents of Schools—Continued.

County.	Superintendent.
IOWA—continued.	
Madison	Carrie E. Ludlow, Winterset.
Mahaska	Jesse L. Dubuc, Oskaloosa.
Marion	Mrs. Mae Goldizen, Knoxville.
Marshall	C. E. Shutt, Marshalltown.
Mills	Geo. F. Masters, Glenwood.
Mitchell	C. W. Bond, Osage.
Monona	Ella M. Gardner, Onawa.
Monroe	Myrta Harlow, Albia.
Montgomery	Elizabeth Hugus, Red Oak.
Muscatine	F. D. Bradley, Muscatine.
O'Brien	J. J. Billingsly, Primghar.
Osceola	Mary E. De Boos, Sibley.
Page	Agnes Samuelson, Clarinda.
Palo Alto	Margaret Ryan, Emmetsburg.
Plymouth	Erna H. Plath, Le Mars.
Pocahontas	Grace D. Bradshaw, Pocahontas.
Polk	Pearl de Jarnette, Des Moines.
Pottawattamie	F. J. Puryear, Council Bluffs.
Poweshiek	Estelle Coon, Brooklyn.
Ringgold	Louise Askren, Mount Ayr.
Sac	Jno. R. Slacks, Sac City.
Scott	Henry E. Ronge, Davenport.
Shelby	Rose M. Parker, Harlan.
Sioux	F. E. Fuller, Orange City.
Story	Mauds Wakefield, Nevada.
Tama	Mary A. Richards, Toledo.
Taylor	Allie Nelson, Bedford.
Union	William Bell, Creston.
Van Buren	Lizzie V. Meredith, Keosauqua.
Wapello	R. L. Gardner, Ottumwa.
Warren	W. M. McGee, Indianola.
Washington	Katherine Stichter, Washington.
Wayne	Jennie L. Clark, Corydon.
Webster	Anna Johnson, Fort Dodge.
Winnebago	Jessie Parker, Forest City.
Winneshiek	H. E. Miller, Decorah.
Woodbury	T. B. Morris, Sioux City.
Worth	Bella Landsrud Shurven, Northwood.
Wright	M. L. Howell, Clarion.
KANSAS.	
Allen	Vide M. Fetherngill, Iola.
Anderson	Hattie E. Woods, Garnett.
Atchison	D. Anna Speer, Atchison.
Barber	Margaret G. Kernohan, Medicine Lodge.
Barton	W. L. Bowersox, Great Bend.
Bourbon	May Hare, Fort Scott.
Brown	Rebecca Kiner, Hiawatha.
Butler	H. I. French, El Dorado.
Chase	Mrs. Grace Willis, Cottonwood Falls.
Chautauqua	J. E. Kibler, Sedan.
Cherokee	E. E. Stonecipher, Columbus.
Cheyenne	Robert Cram, St. Francis.
Clark	Maggie M. Myers, Ashland.
Clay	Mrs. Sue Hemphill, Clay Center.
Cloud	Jane Collins, Concordia.
Coffey	Cora E. Arnold, Burlington.
Comanche	Mary Willard, Coldwater.
Cowley	Edna L. Johnson, Winfield.
Crawford	J. W. Miley, Girard.
Decatur	T. B. Wolfe, Oberlin.
Dickinson	Gracelee Wolverton, Abilene.
Doniphan	Edna S. Whitney, Troy.
Douglas	C. R. Hawley, Lawrence.
Edwards	C. M. Rankin, Kinsley.
Elk	Austin Kimzey, Howard.
Ellis	Louis Christiansen, Hays.
Ellsworth	H. Coover, Ellsworth.
Finney	Emma F. Wilson, Garden City.
Ford	Eulalia Nevins, Dodge City.
KANSAS—contd.	
Franklin	W. A. Vickers, Ottawa.
Geary	Mrs. Nora R. Clark, Junction City.
Gove	Chas. D. Wilson, Gove.
Graham	U. S. Loyd, Hill City.
Grant	Mrs. Emily K. Hoelcel, New Ulysses.
Gray	Edith Miller, Cimarron.
Greeley	August Halfman, Tribune.
Greenwood	Mary L. Service, Eureka.
Hamilton	C. W. Noell, Syracuse.
Harper	J. C. Palmer, Anthony.
Harvey	Ruth E. Mitten, Newton.
Haskell	George B. Levitt, Santa Fe.
Hodgeman	Mrs. Willia N. Maguire, Jetmore.
Jackson	Elizabeth Warning, Holton.
Jefferson	Sudie Anderson, Oskaloosa.
Jewell	Lula Coyner, Mankato.
Johnson	May Cain, Olathe.
Kearny	Mrs. India Simmons, Lakin.
Kingman	J. W. Wilson, Kingman.
Kiowa	N. T. Cox, Greensburg.
Labette	Ida B. Marley, Oswego.
Lane	Mrs. Erma Fallis Dickinson, Dighton.
Leavenworth	E. Voorhees, Leavenworth.
Lincoln	G. H. Hower, jr., Lincoln.
Linn	J. W. Hays, Mound City.
Logan	Malcolm Peterson, Russell Springs.
Lyon	Mrs. Nettie B. Cartmel, Emporia.
Marion	J. A. Ray, Marion.
Marshall	W. H. Seaman, Marysville.
McPherson	I. C. Meyer, McPherson.
Meade	Mrs. Pearl Wood Smith, Meade.
Miami	Elizabeth Ellis, Paola.
Mitchell	Philip Louthan, Beloit.
Montgomery	Ethel A. Gillespie, Independence.
Morris	F. H. Manning, Council Grove.
Morton	E. B. Dryden, Richfield.
Nemaha	W. R. Anthony, Seneca.
Neosho	J. A. Cannon, Erie.
Ness	Edna Robison, Ness City.
Norton	E. E. Nelson, Norton.
Osage	C. A. Deardorff, Lyndon.
Osborne	Bertha Yoxall, Osborne.
Ottawa	Jessie G. Adee, Minneapolis.
Pawnee	Ida B. Curtis, Larned.
Phillips	Nettie W. Barber, Phillipsburg.
Pottawatomie	G. F. Richardson, Westmoreland.
Pratt	L. Grace Heaton, Pratt.
Rawlins	Bert Kesselring, Atwood.
Reno	S. P. Rowland, Hutchinson.
Republic	Euna M. Arrasmith, Belleville.
Rice	Bertha McCabe, Lyons.
Riley	Reppie Carey, Manhattan.
Rooks	Mrs. D. F. Walsh, Stockton.
Rush	E. A. Kirkpatrick, La Crosse.
Russell	Caleb Bodmer, Russell.
Saline	W. H. Stewart, Salina.
Scott	Ella Yager, Scott.
Sedgwick	R. M. Crum, Wichita.
Seward	A. B. Fullmer, Liberal.
Shawnee	John F. Eby, Topeka.
Sheridan	Warner Johnson, Hoxie.
Sherman	Mrs. Ethel Morey, Goodland.
Smith	Miles Elson, Smith Center.
Stafford	Anna M. Beck, St. John.
Stanton	Martha Doll, Johnson.
Stevens	R. W. Ellsaesser, Hugoton.
Sumner	John R. Brooks, Wellington.
Thomas	Elizabeth Stover, Colby.

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V.—County Superintendents of Schools—Continued.

County.	Superintendent.
KANSAS—contd.	
Trego	Grace M. Pershing, Wakeeney.
Wabaunsee	Annie G. Crouch, Alma.
Wallace	Rose Gilbert, Sharon Springs.
Washington	Millie Spence, Washington.
Wichita	P. E. Metheney, Leoti.
Wilson	Fannie Butts, Fredonia.
Woodson	Elizabeth T. Spencer, Yates Center.
Wyandotte	Arthur J. Mellott, Kansas City.
KENTUCKY.	
Adair	Tobias Huffaker, Columbia.
Allen	O. V. Trammel, Scottsville.
Anderson	Mrs. Lee M. Campbell, Lawrenceburg.
Ballard	J. E. Lane, Wickliffe.
Barren	Nettie Depp, Glasgow.
Bath	R. W. Kincaid, Owingsville.
Bell	Simon Delph, Pineville.
Boone	Edgar C. Riley, Burlington.
Bourbon	Mabel Robbins, Paris.
Boyd	J. G. Rucker, Catlettsburg.
Boyle	Mrs. Lydia Lewis, Danville.
Bracken	William Huffman, Brooksville.
Breathitt	William Turner, Jackson.
Breckinridge	J. W. Trent, Hardinsburg.
Bullitt	Ora L. Roby, Shepherdsville.
Butler	A. L. Haynes, Morgantown.
Caldwell	Homer W. Nichols, Princeton.
Calloway	Mrs. Lucile Grogan Jones, Murray.
Campbell	J. W. Reiley, Alexandria.
Carlisle	D. S. Bishop, Bardwell.
Carroll	Sallie Ford, Carrollton.
Carter	W. E. Robinson, Grayson.
Casey	E. L. Cundiff, Liberty.
Christian	L. E. Foster, Hopkinsville.
Clark	J. E. Lanter, Winchester.
Clay	Luther Hatton, Manchester.
Clinton	Ermon Sloan, Albany.
Crittenden	E. J. Travis, Marion.
Cumberland	Mrs. Cora S. Payne, Burksville.
Daviess	R. L. McFarland, Owensboro.
Edmonson	W. A. Pardue, Brownsville.
Elliott	D. F. Gray, Sandy Hook.
Estill	J. H. Richardson, Irvine.
Fayette	Mrs. Nannie G. Faulconer, Lexington.
Fleming	L. N. Hull, Flemingsburg.
Floyd	Oma Preston, Prestonburg.
Franklin	L. D. Stucker, Frankfort.
Fulton	Virginia Luten, Hickman.
Gallatin	Jas. R. McDanell, Warsaw.
Garrard	Jennie Higgins, Lancaster.
Grant	B. N. Harrison, Williamstown.
Graves	J. E. Coleman, Mayfield.
Grayson	Ella Lewis, Leitchfield.
Green	Lizzie Y. Graham, Greensburg.
Greenup	Sophia E. Kitchen, Greenup.
Hancock	Herman J. Rice, Hawesville.
Hardin	J. A. Payne, Elizabethtown.
Harlan	W. L. Bailey, Harlan.
Harrison	J. W. Rogers, Cynthiana.
Hart	S. M. Durham, Mumfordville.
Henderson	R. L. Cinnamond, Henderson.
Henry	G. A. McGowan, New Castle.
Hickman	W. L. Best, Clinton.
Hopkins	L. R. Ray, Madisonville.
Jackson	J. J. Davis, McKee.
Jefferson	Orville Stivers, Louisville.
Jessamine	C. C. Sandusky, Nicholasville
KENTUCKY—contd.	
Johnson	Fred Meade, Paintsville.
Kenton	J. C. Mills, Erlanger.
Knott	Adam Campbell, Hindman.
Knox	W. W. Evans, Barbourville.
Larue	E. W. Creal, Hodgenville.
Laurel	J. M. Feltner, London.
Lawrence	J. H. Ekers, Louisa.
Lee	W. D. Lucas, Beattyville.
Leslie	J. D. Muncy, Hyden.
Letcher	George W. Jenkins, Whitesburg.
Lewis	J. Q. Adams, Vanceburg.
Lincoln	Garland Singleton, Stanford.
Livingston	John Quertermous, Smithland.
Logan	P. M. Barnes, Russellville.
Lyon	N. G. Martin, Eddyville.
Madison	H. H. Brock, Richmond.
Magoffin	S. S. Elam, Sallyersville.
Marion	J. W. Clarkson, Lebanon.
Marshall	John E. Arant, Benton.
Martin	U. G. Johnson, Ines.
Mason	Jessie O. Yancey, Maysville.
McCracken	M. V. Miller, Paducah.
McCreary	Nora Alcorn, Whitley City.
McLean	R. M. Stroud, Calhoun.
Meade	L. H. Powell, Brandenburg.
Menifee	W. O. Back, Frenchburg.
Mercer	Ora L. Adams, Harrodsburg
Metcalfe	Avery Sartin, Edmonton.
Monroe	J. E. Martin, Tompkinsville.
Montgomery	Georgia Sledd, Mount Sterling.
Morgan	Jas. W. Davis, West Liberty.
Muhlenburg	Amy Longest, Greenville.
Nelson	W. T. McClain, Bardstown.
Nicholas	Lida E. Gardner, Carlisle.
Ohio	Ozna Shults, Hartford.
Oldham	J. W. Selph, La Grange.
Owen	O. V. Jones, Owenton.
Owsley	P. M. Frye, Booneville.
Pendleton	John N. Gosney, Falmouth.
Perry	Jno. C. Napier, Hazard.
Pike	M. F. Campbell, Pikeville.
Powell	Mrs. Kate S. Bohannon, Stanton.
Pulaski	Henry C. Anderson, Somerset.
Robertson	Cleveland Moore, Mount Olivet.
Rockcastle	Mrs. W. A. B. Davis, Mount Vernon.
Rowan	J. H. Powers, Morehead.
Russell	J. W. Mitchell, Jamestown.
Scott	Mary Bradley, Georgetown.
Shelby	L. H. Gregg, Shelbyville.
Simpson	Charles Turner, Franklin.
Spencer	Katie Beauchamp, Taylorsville.
Taylor	George Sapp, Campbellsville.
Todd	Lucian Lindsay, Elkton.
Trigg	Calvert Wallace, Cadiz.
Trimble	Mrs. Carrie Hood, Bedford.
Union	G. W. Curry, Morganfield.
Warren	O. P. Roemer, Bowling Green.
Washington	Ella Shaunty, Springfield.
Wayne	John C. Brammer, Monticello.
Webster	A. L. Lloyd, Dixon.
Whitley	E. F. Davis, Williamsburg.
Wolfe	Taylor Shockey, Campton.
Woodford	M. B. Hifner, Versailles.
LOUISIANA.[1]	
Acadia	J. W. Oxford, Crowley.
Allen	R. G. Corkern, Oberlin.
Ascension	H. P. Broussard, Donaldsonville.
Assumption	S. A. Alleman, Napoleonville.
Avoyelles	J. M. Barham, Marksville.

[1] Parish superintendents.

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V.—County Superintendents of Schools—Continued.

Parish.	Superintendent.	Parish.	Superintendent.
LOUISIANA—contd.		LOUISIANA—contd.	
Baton Rouge:		Livingston	J. E. Coxe, Denham Springs.
East	W. B. Hatcher, Baton Rouge.	Madison	J. R. Linton, Tallulah.
West	J. H. Bres, Port Allen.	Morehouse	L. H. Stevens, Bastrop.
Beauregard	L. D. McCollister, De Ridder.	Natchitoches	L. E. Hudson, Natchitoches.
Bienville	E. H. Fisher, Arcadia.	Orleans	J. M. Gwinn, New Orleans.
Bossier	W. A. Fortson, Benton.	Ouachita	T. O. Brown, Monroe.
Caddo	C. E. Byrd, Shreveport.	Plaquemines	J. C. Blanchard, Pointe a la Hache.
Calcasieu	F. M. Hamilton, Lake Charles.		
Caldwell	J. C. Hines, Columbia.	Pointe Coupee	Alonzo McFarland, New Roads.
Cameron	T. W. McCall, Grand Chenier.		
Carroll:		Rapides	D. B. Showalter, Alexandria.
East	Ward Anderson, Lake Providence.	Red River	A. H. Horton, Coushatta.
		Richland	E. E. Keebler, Rayville.
West	W. McG. Dollerhide, Pioneer.	Sabine	W. S. Mitchell, Many.
Catahoula	J. K. Stone, Harrisonburg.	St. Bernard	Clement Story, Violet.
Claiborne	J. H. Davidson, Homer.	St. Charles	J. D. Martin, Hahnville.
Concordia	D. C. Strickler, Vidalia.	St. Helena	J. E. Davis, Greensburg.
De Soto	G. O. Houston, Mansfield.	St. James	J. N. Gourdain, Convent.
Evangeline	E. E. Ortego, Ville Platte.	St. John	L. J. Bourgeois, Edgard.
Feliciana:		St. Landry	W. B. Prescott, Opelousas.
East	E. R. Waller, Clinton.	St. Martin	F. O. Chavez, St. Martinville.
West	R. E. Crump, St. Francisville.	St. Mary	D. N. Foster, Franklin.
Franklin	J. L. McDuff, Winnsboro.	St. Tammany	E. E. Lyon, Covington.
Grant	J. N. Warner, Pollock.	Tangipahoa	A. C. Lewis, Amite.
Iberia	L. A. Walet, New Iberia.	Tensas	T. M. Wade, St. Joseph.
Iberville	L. E. Messick, Plaquemine.	Terrebonne	H. L. Bourgeois, Houma.
Jackson	R. L. Dickerson, Jonesboro.	Union	J. G. Ray, Farmerville.
Jefferson	J. C. Ellis, Gretna.	Vermilion	J. H. Williams, Abbeville.
Jefferson Davis	W. P. Arnette, Jennings.	Vernon	R. A. Boyd, Leesville.
Lafayette	L. J. Alleman, Lafayette.	Washington	D. H. Stringfield, Franklinton.
Lafourche	W. S. Lafargue, Thibodaux.		
La Salle	J. W. Carter, Jena.	Webster	T. W. Fuller, Minden.
Lincoln	T. A. Green, Ruston.	Winn	J. J. Mixon, Winnfield.

Towns.	Superintendent.[1]	Towns.	Superintendent.
MAINE.		MAINE—continued.	
Abbot, Blanchard, Guilford, Monson, Willimantic.	H. M. Pullen, Monson.	Blaine, Bridgewater, Mars Hill.	T. A. De Costa, Mars Hill.
		Bluehill, Brooklin, Sedgwick.	Thomas S. Grindle, Bluehill.
Addison, Jonesboro, Jonesport.	D. Herman Corson, Jonesport.	Boothbay, Boothbay Harbor, Monhegan.	Lewis S. Record, Boothbay Harbor.
Albion, Troy, Unity	Arthur Irish, Unity.		
Alfred, Sanford	C. A. Record, Sanford.		
Anson, Embden, Lexington, New Portland.	John W. Foster, North Anson.	Bowdoin, Litchfield, Wales, West Gardiner.	Cyrus M. Kendrick, Litchfield, R. 18.
Argyle, Greenfield, Bradley, Greenbush, Milford, Passadumkeag.	Mrs. Gertrude E. Gifford, Costigan.	Bowdoinham, Richmond.	E. R. Bowdoin, Richmond.
		Bradford, Charleston, Corinth, Kenduskeag.	John S. Tapley, Charleston.
Ashland, Garfield, Masardis, Nashville, Portage Lake.	S. H. Reed, Ashland.	Brewer, Hampden, Veazie.	F. W. Burrill, Brewer.
		Bridgton, Harrison.	F. E. Russell, Bridgton.
Athens, Cornville, Harmony, Solon.	Herbert W. Wood, Athens.	Brooksville, Castine, Penobscot.	W. E. Clark, Castine.
Bancroft, Danforth, Orient, Reed Pl., Weston.	John F. Philbrook, Danforth.	Brownfield, Cornish, Parsonsfield Porter.	L. M. Felch, Cornish.
		Brownville, Milo	Foster Higgins, Milo.
Beddington, Cherryfield, Columbia Falls, Deblois.	Mrs. Frances C. Jewett, Cherryfield.	Brunswick, Topsham.	John A. Cone, Brunswick.
		Buckfield, Hartford, Hebron.	Chester Tuttle, Buckfield.
Belfast, Searsport	W. B. Woodbury, Belfast.		
Belgrade, Mount Vernon, Readfield.	T. W. McQuaide, Mount Vernon.	Burnham, Canaan, Clinton.	W. E. Stuart, Clinton.
		Buxton, Standish	Fred Benson, Buxton Center.
Benton, Winslow	Chester A. Grant, Winslow.	Camden, Thomaston.	B. E. Packard, Camden.
Berwick, Lebanon.	W. M. Bottomley, Berwick.		
Bethel, Greenwood.	Frank H. Byram, Bethel.	Canton, Turner	C. E. Glover, Turner.

[1] Superintendents of union superintendency composed of towns given. Practically all city superintendents also have rural schools. See list, p. 49.

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V.—County Superintendents of Schools—Continued.

Towns.	Superintendent.
MAINE—continued.	
Cape Elizabeth, South Portland.	Simon M. Hamlin, South Portland.
Caratunk, Concord, Moscow, The Forks, West Forks.	Chas. E. Ball, Bingham.
Caribou, Limestone.	R. J. Libby, Caribou.
Casco, Poland, Otisfield.	Chas. E. Varney, Casco.
Castle Hill, Mapleton, Wade, Washburn.	Norman I. Gallagher, Washburn.
Chapman, Presque Isle.	W. O. Chase, Presque Isle.
Chester, Kingman, Lee, Macwahoc, Mattawamkeag, Winn.	Vinal H. Tibbetts, Mattawamkeag.
China, Vassalboro..	Geo. E. Paine, North Vassalboro.
Columbia, Harrington, Milbridge, Steuben.	Ralph E. Nash, Harrington.
Corinna, Newport, Plymouth.	C. E. Wass, Newport.
Crystal, Island Falls, Sherman.	Geo. C. Hight, Island Falls.
Cumberland, Falmouth, North Yarmouth.	D. W. Lunt, Portland, R. 4.
Damariscotta, Newcastle, South Bristol.	Julia E. Barker, Damariscotta.
Dayton, Saco.....	T. T. Young, Saco.
Deer Isle, Isle au Haut, Stonington.	D. W. Rollins, Deer Isle.
Dexter, Garland...	L. A. Ross, Dexter.
Dover, Foxcroft....	F. A. Morris, Foxcroft.
East Livermore, Wayne.	Elmer Webber, Livermore Falls.
East Machias, Machias, Machiasport, Marshfield, Roque Bluffs, Whitneyville.	John C. Merrill, East Machias.
East Millinocket, Hersey, Millinocket, Mount Chase, Patten.	W. M. Marr, Patten.
Easton, Fort Fairfield.	
Eastport, Lubec...	W. H. Sturtevant, Lubeck.
Eddington, Holden, Orrington.	E. E. Roderick, South Orrington.
Eden, Hancock....	Frank McGouldrick, Bar Harbor.
Eliot, South Berwick.	Blin Allen, South Berwick.
Ellsworth, Franklin.	W. H. Patten, Ellsworth.
MAINE—continued.	
Eagle Lake, Winterville.	V. J. Labb, Winterville.
Fairfield, Oakland.	W. O. Hersey, Fairfield.
Farmingdale, Gardiner.	H. J. Chase, Gardiner.
Farmington, Wilton	Joseph F. Burch, Farmington.
Fort Kent, New Canada, St. Francis, St. John, Wallagrass.	Jos. F. Cyr, Fort Kent.
Frankfort, Monroe, Winterport.	Ray Robinson, Winterport.
Freeport, Yarmouth.	W. C. McCue, Yarmouth.
Frenchville, Grand Isle, Madawaska, St. Agatha.	B. S. Dufour, St. Agatha.
Gorham, Westbrook.	Prescott Keyes, Westbrook.
Gouldsboro, Sorrento, Sullivan, Winter Harbor.	R. L. Sinclair, West Goulds boro.
Greenville, Jackman, Moose River, Sangerville.	Russell S. Taylor, Sangerville.
Hallowell, Winthrop.	Chas. H. Abbott, Hallowell.
Hanover, Rumford.	L. E. Williams, Rumford.
Hartland, Palmyra, St. Albans.	H. E. Fortier, Hartland.
Hodgdon, Houlton.	L. W. Robbins, Houlton.
Hollis, Waterboro .	Louis J. West, Waterboro.
Kennebunk, Kennebunkport.	J. W. Lambert, Kennebunk.
Lisbon, Webster...	A. B. Lord, Lisbon Falls.
Madison, Skowhegan.	L. W. Gerrish, Skowhegan.
Mount Desert, Southwest Harbor, Tremont.	C. L. Clement, Southwest Harbor.
New Sweden, Stockholm, Westmoreland, Woodland.	S. M. Nieveen, New Sweden.
North Berwick, Wells.	Chas. A. Rush, Wells.
Norway, Waterford.	T. C. Morrill, Norway.
Oldtown, Orono...	Wm. D. Fuller, Oldtown.
Paris, Woodstock .	M. C. Joy, South Paris.
Raymond, Windham.	Frank Fortier, North Windham.
Rockland, Rockport.	R. L. West, Rockland.
Swans Island, Vinalhaven.	H. E. Bowman, Vinalhaven.
Jay, Livermore.	E. F. Callahan, Livermore Falls.

County.	Superintendent.
MARYLAND.	
Allegany.....	Edward F. Webb, Cumberland.
	G. W. Perdew, assistant, Cumberland.
Anne Arundel.....	——, Annapolis.
Baltimore.....	A. S. Cook, Towson.
Brunswick.....	Oscar M. Fogle.
	J. T. Hershner, assistant.
Calvert.....	Jas. B. Lattimer, Prince Frederick.
Caroline.....	E. M. Noble, Denton.
Carroll.....	M. S. H. Unger, Westminster.
Cecil.....	N. U. Caldway, Elkton.
Charles.....	T. M. Carpenter, La Plata.
Dorchester.....	A. R. Spald, Cambridge.
Frederick.....	G. Lloyd Palmer, Frederick.
MARYLAND—contd.	
Garrett.....	F. E. Rathbun, Oakland.
Harford.....	C. M. Wright, Bel Air.
Howard.....	W. C. Phillips, Ellicott City.
Kent.....	J. L. Smyth, Chestertown.
Montgomery.....	W. B. Burdette, Rockville.
Prince Georges.....	E. S. Burroughs, Upper Marlboro.
Queen Annes.....	B. J. Grimes, Centerville.
St. Marys.....	G. W. Joy, Leonardtown.
Somerset.....	Wm. H. Dashiell, Princess Anne.
Talbot.....	Nicholas Orem, Easton.
Washington.....	C. E. Dryden, Hagerstown.
Wicomico.....	Wm. J. Holloway, Salisbury.
Worcester.....	E. W. McMaster, Pocomoke City.

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V.—County Superintendents of Schools—Continued.

Towns.	Superintendent.[1]
MASSACHUSETTS.[2]	
Acton, Carlisle, Littleton, Westford.	Frank H. Hill, Littleton.
Alford, Egremont, Richmond, West Stockbridge.	Theodore W. King, West Stockbridge.
Amherst, Pelham..	Carroll R. Reed, Amherst.
Ashby, Lunenburg, Townsend.	Herman C. Knight, Townsend.
Ashfield, Cummington, Goshen, Plainfield.	Robert W. Martin, Ashfield.
Ashland, Hopkinton.	W. K. Putney, Ashland.
Auburn, Sutton....	Osmon C. Evans, Worcester.
Ayer, Boylston, Shirley, West Boylston.	Frank C. Johnson, Ayer.
Barre, Hardwick, Petersham.	Albert S. Cole, Barre.
Becket, Chester, Middlefield.	William H. Sanderson, Chester.
Belmont, Burlington.	George P. Armstrong, Belmont.
Belchertown, Enfield.	Alvin R. Lewis, Belchertown.
Bellingham, Hopedale, Mendon.	Francello G. Atwell, Hopedale.
Berkley, Dighton, Rehoboth.	Mortimer H. Bowman, Dighton.
Berlin, Northboro, Shrewsbury, Southboro.	Frederick B. Van Ornum, Northboro.
Bernardstown, Hadley, Hatfield.	Clinton J. Richards, Hatfield.
Blandford, Huntington, Montgomery, Russell.	Leon O. Merrill, Huntington.
Bolton, Dunstable, Harvard, Pepperell.	Austin R. Paull, Pepperell.
Bourne, Mashpee, Sandwich.	Herbert L. Whitman, Buzzards Bay.
Boxborough, Maynard, Stow.	W. H. Millington.
Boxford, Georgetown, Groveland, Rowley.	Josiah McCann, Georgetown.
Brewster, Dennis, Yarmouth.	L. Thomas Hopkins, Yarmouth, Port.
Brookfield, North Brookfield.	F. H. Tenney, North Brookfield.
Buckland, Colrain, Shelburne.	Arthur W. Smith, Shelburne Falls.
Carver, Lakeville, Raynham, Rochester.	Chester W. Humphrey, Rochester.
Charlemont, Hawley, Heath, Rowe.	Frank P. Davison, Charlemont.
Charlton, Leicester.	Everett G. Loring, Leicester.
Chatham, Eastham, Harwich, Orleans.	Loring G. Williams, Harwich.
Cheshire, Hancock, Lanesboro, New Ashford.	George B. Clarke, Lanesboro.
Chesterfield, Williamsburg, Worthington.	Elbridge W. Goodhue, Haydenville.
Chilmark, Edgartown, Gay Head, Oak Bluffs, Tisbury, West Tisbury.	Charles A. Crowell, jr., Vineyard Haven.
Clarksburg, Florida, Monroe, Savoy.	Arthur C. Harrington, North Adams.
Cohasset.....	Stanley C. Lary, Cohasset.
Conway, Deerfield, Sunderland, Whatly.	H. C. Bales, South Deerfield.
Dana, Greenwich, New Salem, Prescott.	C. C. Richardson, North Dana.
Douglas, Uxbridge	C. L. Judkins, Uxbridge.
Dover, Sudbury, Wayland.	Frank H. Benedict, Cochituate.
Dracut, North Reading, Tewksbury, Tyngsborough.	Charles L. Randall, Lowell.
Duxbury, Marshfield, Scituate.	W. E. Chaffin, Scituate.
East Bridgewater, West Bridgewater.	Edgar H. Grout, East Bridgewater.
East Longmeadow, Hampden, Longmeadow, Wilbraham.	Leonora E. Toft, Springfield.
Erving, Leverett, Shutesbury, Wendell.	Mrs. Cora A. Stearns, Wendell Depot.
Essex, Lynnfield, Middleton, Topsfield, Wenham.	Harvey R. William, Wenham.
Falmouth.....	Carl Holman, Falmouth.
Foxboro, Norton, Plainville.	Ira A. Jenkins, Foxboro.
Freetown, Westport.	
Gill, Leyden, Northfield, Warwick.	Elmer F. Howard, East Northfield.
Granville, Sandisfield, Southwick, Tolland.	
Hamilton.....	E. P. Fitts, Hamilton.
Halifax, Kingston, Pembroke, Plympton.	Geo. Allen Coe, Kingston.
Hanover, Hanson, Norwell.	James S. Hayes, Rockland.
Hinsdale, Peru, Washington, Windsor.	J. R. Childs, Hinsdale.
Holden, Oakham, Paxton, Rutland.	Robert I. Bramhall, Holden.
Holliston, Medway, Sherborn.	Carroll H. Brown, West Medway.
Hubbardston, Phillipston, Royalston, Templeton.	Asa M. Jones, Baldwinville.
Lancaster.....	A. S. Rollins, Lancaster.
Lenox.....	Charles A. Tucker, Lenox.
Manchester.....	John C. Mackin, Manchester.
Medfield, Millis, Norfolk, Westwood.	A. S. Ames, substitute; Mr. West on leave of absence, Millis.
Merrimac, Newbury, Salisbury, West Newbury.	H. H. Pratt, West Newbury.
Mount Washington, New Marlboro, Sheffield.	Alfred O. Tower, Sheffield.
Nahant.....	J. D. W. Chester, Nahant.
Nantucket.....	Edwin S. Tirrell, Nantucket.
New Braintree, Sturtbridge, Brookfield.	Melville A. Stone, West Brookfield.
Princeton, Sterling, Westminster.	Harry C. Waldron, Leominster.
Provincetown, Truro, Wellfleet.	C. M. Pennell.

[1] Superintendent of union superintendency composed of towns given.
[2] Practically all city superintendents have some rural schools. See list, p. 50.

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V.—County Superintendents of Schools—Continued.

Towns.	Superintendent.
MASSACHUSETTS—continued.	
Somerset, Swansea.	C. W. Walter, South Swansea.
Stockbridge	Samuel B. Churchill, Stockbridge.
Weston	Charles M. Eaton, Weston.

Towns.	Superintendent.
MASSACHUSETTS—continued.	
Williamstown	Walter G. Mitchell, Williamstown.
Wilmington, Boxford, Middleton.	Jas. R. MacDougall.

County.	Superintendent.
MICHIGAN.	
Alcona	Thomas B. Cook, Harrisville.
Alger	Earle H. Sortore, Munising.
Allegan	C. L. Goodrich, Allegan.
Alpena	E. L. Little, Alpena.
Antrim	Archie C. Belding.
Arenac	G. H. Glasure, Standish.
Baraga	S. O. Clinton, Baraga.
Barry	E. J. Edger, Hastings.
Bay	J. B. Laing, Bay City.
Benzie	A. H. Upton, Frankfort.
Berrien	Mrs. E. H. Cole, Benton Harbor.
Branch	L. L. Livermore, Coldwater.
Calhoun	D. A. Davis, Marshall.
Cass	Ruth H. Mosier, Dowagiac.
Charlevoix	May L. Stewart, East Jordan.
Cheboygan	Jay Chamberlain, Cheboygan.
Chippewa	T. R. Easterday, Sault Ste. Marie.
Clare	A. H. Aldrich, Harrison.
Clinton	T. H. Townsend, St. Johns.
Crawford	James A. Kalahar, Frederic.
Delta	C. U. Woolpert, Escanaba.
Dickinson	D. O'Hara, Iron Mountain.
Eaton	Cynthia A. Green, Charlotte.
Emmet	H. S. Babcock, Harbor Springs.
Genesee	John L. Riegle, Flint.
Gladwin	C. J. Barnum, Gladwin.
Gogebic	Laura Bowden, Ironwood.
Grand Traverse	Lee Hornsby, Traverse City.
Gratiot	H. A. Potter, Ithaca.
Hillsdale	Harry McClave, Hillsdale.
Houghton	William Bath, Houghton.
Huron	W. H. Sparling, Bad Axe.
Ingham	F. E. Searl, Mason.
Ionia	Harvey H. Lowrey, Ionia.
Iosco	J. A. Campbell, Tawas City.
Iron	John F. Mason, Crystal Falls.
Isabella	E. T. Cameron, Mount Pleasant.
Jackson	W. W. McLain, Jackson.
Kalamazoo	Sheridan Mapes, Kalamazoo.
Kalkaska	Irene Louise Getty, Kalkaska.
Kent	A. M. Freeland, Grand Rapids.
Keweenaw	H. S. Winter, Mohawk.
Lake	Edwin G. Johnson, Luther.
Lapeer	C. H. Naylor, Lapeer.
Leelanau	H. S. Dumbrille, Glen Arbor.
Lenawee	G. J. Tripp, Adrian.
Livingston	H. G. Aldrich, Fowlerville.
Luce	Ann I. Auten, Newberry.
Mackinac	E. J. Lachance, St. Ignace.
Macomb	Will L. Lee, Richmond.
Manistee	Elbert Gerred, Manistee.
Marquette	S. R. Anderson, Marquette.
Mason	C. A. Rinehart, Scottville.
Mecosta	B. J. Ford, Big Rapids.
Menominee	Jesse Hubbard, Menominee.
Midland	B. G. Scollay, Midland.
Missaukee	J. Q. Zuck, Lake City.
Monroe	John G. Schafer, Monroe.
Montcalm	E. Straight, Stanton.
Montmorency	David W. Farrier, Atlanta.
Muskegon	Nellie B. Chisholm, Montague.
Newaygo	C. L. Carter, Fremont.
Oakland	A. L. Craft, Pontiac.

County.	Superintendent.
MICHIGAN—contd.	
Oceana	E. R. Hutchins, Hart.
Ogemaw	Josephine Woods, West Branch.
Ontonagon	A. C. Adair, Rockland.
Osceola	Geo. F. Roxburgh, Reed City.
Oscoda	John H. Speck, Mio.
Otsego	R. F. Jennings, Vanderbilt.
Ottawa	N. R. Stanton, Holland.
Presque Isle	M. A. Caldwell, Onaway.
Roscommon	W. M. Coon, Roscommon.
Saginaw	B. S. Tefft, Saginaw, W. S.
St. Clair	E. T. Blackney, Port Huron.
St. Joseph	Lewis Miller, Centerville.
Sanilac	W. J. Musselman, Sandusky.
Schoolcraft	W. T. S. Cornell, Manistique.
Shiawassee	H. E. Slocum, Corunna.
Tuscola	B. H. McComb, Caro.
Van Buren	E. V. Root, Bangor.
Washtenaw	Evan Essery, Ann Arbor.
Wayne	E. W. Yost, Detroit.
Wexford	Roy Noteware, Mesick.
MINNESOTA.	
Aitkin	Mrs. C. S. Young, Aitkin.
Anoka	Geo. D. Goodrich, Anoka.
Becker	Anna G. Rogstad, Detroit.
Beltrami	W. B. Stewart, Bemidji.
Benton	Agnes K. Burns, Sauk Rapids.
Bigstone	Anna Swenson, Ortonville.
Blue Earth	W. H. Detamore, Mankato.
Brown	Robt. B. Kennedy, New Ulm.
Carlton	Nora A. Nilson, Moose Lake.
Carver	F. L. Williams, Watertown.
Cass	R. F. Ross, Walker.
Chippewa	Petra Storaker, Montevideo.
Chisago	E. J. Cederholm, Lindstrom.
Clay	S. O. Tang, Moorhead.
Clearwater	John H. Sommervold, Bagley.
Cook	Wm. J. Clinch, Grand Marais.
Cottonwood	Alfred R. Iverson, Windom.
Crow Wing	Irma C. Hartley, Brainerd.
Dakota	John P. Karpen, Hastings.
Dodge	Zena Cooper, Mantorville.
Douglas	Geo. Susens, Alexandria.
Faribault	Margaret E. Bieri, Blue Earth.
Fillmore	Oscar Carlson, Preston.
Freeborn	Harold Dahlen, Albert Lea.
Goodhue	E. B. Bergquist, Red Wing.
Grant	Blanch L. Brennin, Elbow Lake.
Hennepin	H. I. Harter, Minneapolis, Courthouse.
Houston	Marie Otterness, Caledonia.
Hubbard	D. R. Bradford, Park Rapids.
Isanti	Mrs. M. B. Hixson, Cambridge.
Itasca	Mrs. Estelle Whipple, Grand Rapids.
Jackson	J. B. Arp, Jackson.
Kanabec	Willis Fairbanks, Mora.
Kandiyohi	W. D. Frederickson, Willmar.
Kittson	Hans Hanson, Hallock.
Koochiching	D. B. Jewell, International Falls.
Lac qui Parle	A. J. Kittleson, Madison.
Lake	Mrs. Alice W. Lawrence, Two Harbors.

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V.—County Superintendents of Schools—Continued.

County.	Superintendent.
MINNESOTA—contd.	
Lesueur	J. A. Meagher, Lesueur Center.
Lincoln	J. T. Clawson, Ivanhoe.
Lyon	H. R. Painter, Marshall.
McLeod	Geo. F. Munler, Hutchinson.
Mahnomen	James Sweeney, Mahnomen.
Marshall	David Johnson, Warren.
Martin	C. J. Timms, Fairmont.
Meeker	Anna Onsdorff, Litchfield.
Millelacs	——, Princeton.
Morrison	M. E. Barnes, Little Falls.
Mower	Mrs. Eunice L. Rice, Austin.
Murray	Jennie Holm, Slayton.
Nicollet	Albert J. Holmstead, St. Peter.
Nobles	E. K. Sampson, Worthington.
Norman	Ida Rud, Ada.
Olmsted	Wm. L. Mercer, Rochester.
Ottertail	L. R. Adley, Fergus Falls.
Pennington	E. A. Mostue, Thief River Falls.
Pine	R. H. Blankenship, Pine City.
Pipestone	J. R. Campbell, Pipestone.
Polk	N. A. Thorson, Crookston.
Pope	Lena Otteson, Glenwood.
Ramsey	Geo. H. Reif, St. Paul, Courthouse.
Red Lake	Lou F. Green, Red Lake Falls.
Redwood	Mrs. Adella G. Pratt, Redwood Falls.
Renville	Amalia M. Bengtson, Olivia.
Rice	J. H. Lewis, Faribault.
Rock	Edia A. Headley, Luverne.
Roseau	Mrs. Bergit Billberg, Roseau.
St. Louis	N. A. Young, Duluth.
Scott	T. J. Nickolay, Shakopee.
Sherburne	Ada P. Conger, Becker.
Sibley	W. M. Carver, Gaylord.
Stearns	W. A. Boerger, St. Cloud.
Steele	James A. Mork, Owatonna.
Stevens	Ray S. Roberts, Morris.
Swift	Tillie S. Thomason, Benson.
Todd	Victor S. Knutson, Long Prairie.
Traverse	Bessie Caswell, Wheaton.
Wabasha	Harry V. Fick, Lake City.
Wadena	Maude R. Kennedy, Wadena.
Waseca	H. C. Van Loh, Waseca.
Washington	E. N. Swanson, Stillwater.
Watonwan	Mabel Madson, St. James.
Wilkin	A. S. Gredvig, Breckenridge.
Winona	A. C. Loomis, Winona.
Wright	A. A. Zech, Annandale.
Yellow Medicine	Lue A. Olds, Granite Falls.
MISSISSIPPI.	
Adams	M. C. Montgomery, Natchez.
Alcorn	W. A. McCord, Corinth.
Amite	J. N. Steele, Liberty.
Attala	W. A. Hull, Kosciusko.
Benton	W. T. Renick, Ashland.
Bolivar	G. H. Armstrong, Cleveland.
Calhoun	A. J. Smith, Pittsboro.
Carroll	D. D. Fullilove, Vaiden.
Chickasaw	Geo. D. Riley, Houston.
Choctaw	J. F. Bridges, Chester.
Claiborne	S. J. Russell, Port Gibson.
Clarke	G. B. Parker, Quitman.
Clay	E. H. Walker, West Point.
Coahoma	J. M. Brooks, Clarksdale.
Copiah	A. A. McAlpin, Hazlehurst.
Covington	Bura Hilbun, Collins.
De Soto	R. E. L. Morgan, Hernando.
Forrest	E. J. Currie, Hattiesburg.
Franklin	W. L. Foreman, Meadville.
George	W. A. Avera, Lucedale.
Greene	Newton James, Leakesville.
Grenada	M. McKibben, Grenada.
Hancock	John Craft, Bay St. Louis.

County.	Superintendent.
MISSISSIPPI—contd.	
Harrison	W. H. Wood, Gulfport.
Hinds	F. M. Coleman, Raymond.
Holmes	J. M. Kimbrough, Lexington.
Issaquena	Geo. Robinson, Mayersville.
Itawamba	J. A. Senter, Fulton.
Jackson	Guy D. Dean, Pascagoula.
Jasper	C. E. Watkins, Bay Springs.
Jefferson	L. L. Posey, Fayette.
Jefferson Davis	W. W. Lee, Prentiss.
Jones	A. C. Knight, Laurel.
Kemper	D. W. Jackson, Dekalb.
Lafayette	C. A. McLarty, Oxford.
Lamar	A. Q. Broadus, Purvis.
Lauderdale	T. C. Lockard, Meridian.
Lawrence	W. L. McGahey, Monticello.
Leake	C. M. Langford, Carthage.
Lee	T. M. Milam, Tupelo.
Leflore	J. R. Hughes, Greenwood.
Lincoln	Barney Grice, Brookhaven.
Lowndes	E. A. Stanley, Columbus.
Madison	G. R. Bennett, Canton.
Marion	E. I. Watts, Columbia.
Marshall	John P. Horton, Holly Spring.
Monroe	W. A. Addington, Aberdeen.
Montgomery	Guy C. Burton, Winona.
Neshoba	W. W. Gresham, Philadelphia.
Newton	M. G. Scarborough, Decatur.
Noxubee	J. G. Chandler, Macon.
Oktibbeha	C. E. Scroggins, Starkville.
Panola	C. B. Young, Sardis.
Pearl River	Leopold Locke, Poplarville.
Perry	W. F. Backstrom, New Augusta.
Pike	H. W. Kenna, Magnolia.
Pontotoc	J. R. Spencer, Pontotoc.
Prentiss	J. F. Chambers, Booneville, R. No. 3.
Quitman	F. M. Bizzell, Marks.
Rankin	H. H. Bullock, Brandon.
Scott	O. D. Loper, Forest.
Sharkey	J. N. Hall, Rolling Fork.
Simpson	J. R. Williamson, Mendenhall.
Smith	Allen Caughman, Raleigh.
Stone	C. H. Bass, Wiggins.
Sunflower	C. T. Bookout, Indianola.
Tallahatchia	R. H. Harrison, Charleston.
Tate	J. T. Cathey, Senatobia.
Tippah	J. E. Pearce, Ripley.
Tishomingo	N. L. Phillips, Iuka.
Tunica	L. C. Cannon, Tunica.
Union	T. O. Randall, New Albany
Walthall	C. I. Brumfield, Tylertown.
Warren	J. H. Culkin, Vicksburg.
Washington	B. L. Hatch, Greenville.
Wayne	J. M. Wilkins, Waynesboro.
Webster	A. C. Webb, Walthall.
Wilkinson	John C. Day, Woodville.
Winston	Neal Prisock, Louisville.
Yalobusha	J. R. Hodnett, Water Valley.
Yazoo	Hugh Bull, Yazoo City.
MISSOURI.	
Adair	P. J. Fowler, Kirksville.
Andrew	Leslie M. Dobbs, Savannah.
Atchison	Gertrude Thompson, Rock Port.
Audrain	W. C. Johnson, Mexico.
Barry	W. E. Hankins, Cassville.
Barton	L. E. Brous, Lamar.
Bates	A. C. Moreland, Butler.
Benton	Chas. G. Harvey, Warsaw.
Bollinger	W. M. Welker, Marble Hill.
Boone	Geo. T. Porter, Columbia.
Buchanan	Geo. K. Gilpin, St. Joseph.
Butler	H. O. Harrawood, Poplar Bluff.
Caldwell	D. N. McClintock, Kingston.
Callaway	R. G. Hale, Fulton.

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V.—County Superintendents of Schools—Continued.

County.	Superintendent.
Missouri—contd.	
Camden	M. E. Johnson, Linn Creek.
Cape Girardeau	J. T. McDonald, Cape Girardeau.
Carroll	Mrs. Margaret Squires, Carrollton.
Carter	W. S. Perrin, Ellsinore.
Cass	C. A. Burke, Harrisonville.
Cedar	Ira A. McBride, Stockton.
Chariton	C. C. Carlstead, Keytesville.
Christian	Tom Mapes, Ozark.
Clark	Helen F. McKee, Kahoka.
Clay	E. L. Black, Liberty.
Clinton	Mrs. Anna L. Simms, Plattsburg.
Cole	J. S. Lumpkin, Jefferson City.
Cooper	S. F. Mauck, Bunceton.
Crawford	Wm. P. Summers, Steelville.
Dade	E. H. Carender, Greenfield.
Dallas	John A. Pitman, Buffalo.
Daviess	Hallie Burton, Gallatin.
Dekalb	W. O. Swails, Clarksdale.
Dent	Jas. W. Milsap, Salem.
Douglas	T. J. Moorhouse, Ava.
Dunklin	E. D. McAnally, Kennett.
Franklin	C. A. Cole, Union.
Gasconade	A. O. Mann, Hermann.
Gentry	Gretchen Jennings, Albany.
Greene	C. W. McCroskey, Springfield.
Grundy	Elizabeth Brainerd, Trenton.
Harrison	Nellie K. Sutton, Bethany.
Henry	R. E. Bell, Clinton.
Hickory	Oliver J. Watkins Hermitage.
Holt	Mrs. Alberta G. Murphy, Oregon.
Howard	Luman L. Spry, Fayette.
Howell	W. C. McMillin, West Plains.
Iron	G. W. Hanson, Ironton.
Jackson	L. F. Blackburn, Independence.
Jasper	L. W. Kost, Carthage.
Jefferson	R. B. Wilson, Hillsboro.
Johnson	R. H. Boston, Warrensburg.
Knox	W. E. Cottey, Edina.
Laclede	G. C. Jones, Lebanon.
Lafayette	H. T. Phillips, Lexington.
Lawrence	Harry Moore, Mount Vernon.
Lewis	Lloyd H. Hicks, Monticello.
Lincoln	Sallie Brown, Troy.
Linn	E. L. Joyce, Brookfield.
Livingston	J. M. Gallatin, Chillicothe.
McDonald	P. M. Collins, Pineville.
Macon	O. L. Cross, Macon.
Madison	W. S. Cooper, Fredericktown.
Maries	C. D. Snodgrass, Vienna.
Marion	Frankie Connell, Hannibal.
Mercer	W. B. Kesterson, Princeton.
Miller	H. M. Atwell, Tuscumbia.
Mississippi	Mrs. Clara E. Graham, Charleston.
Moniteau	Edgar Strother, California.
Monroe	L. D. Ash, Paris.
Montgomery	W. F. Hupe, Montgomery City.
Morgan	M. Wray Witten, Versailles.
New Madrid	L. O. Swan, New Madrid.
Newton	W. E. Veerkamp, Neosho.
Nodaway	A. H. Cooper, Maryville.
Oregon	C. O. Custer, Alton.
Osage	R. H. Bryan, Linn.
Ozark	A. J. Kimball, Romance.
Pemiscot	Chas. G. Ross, Caruthersville.
Perry	Thomas Caruthers, Perryville.
Pettis	T. R. Luckett, Sedalia.
Phelps	A. Z. Black, Rolla.
Pike	O. A. Wilson, Bowling Green.
Platte	J. F. Sexton, Platte City.
Polk	Daisy Johnson, Bolivar.
Pulaski	L. J. Gladden, Laquey.
Putnam	H. U. G. Turnmire, Unionville.
Ralls	L. C. Northcutt, New London.
Randolph	S. B. McCully, Moberly.
Ray	W. T. McGaugh, Richmond.
Reynolds	J. G. Hartman, Centerville.
Ripley	C. N. Pennington, Doniphan.
St. Charles	Benj. H. Jolly, St. Charles.
St. Clair	C. E. Higgins, Osceola.
St. Francois	A. H. Akers, Farmington.
Ste. Genevieve	Joseph King, Ste. Genevieve.
St. Louis	R. G. Russell, Clayton.
Saline	Jas. L. Lynch, Marshall.
Schuyler	J. F. Botts, Lancaster.
Scotland	Mrs. Arla Williams, Memphis.
Scott	M. E. Montgomery, Benton.
Shannon	Walter Webb, Eminence.
Shelby	Mrs. Myrtle Threlkeld, Shelbyville.
Stoddard	Mrs. C. E. Smith, Bloomfield.
Stone	L. V. Threlfall, Galena.
Sullivan	Roxana Jones, Milan.
Taney	J. W. Bennett, Forsyth.
Texas	F. J. Burney, Houston.
Vernon	Lizzie L. White, Nevada.
Warren	F. W. Kehr, Marthasville.
Washington	Burwell Fox, Potosi.
Wayne	C. E. Burton, Piedmont.
Webster	Sam A. Miller, Marshfield.
Worth	Mrs. Cora Early, Grant City.
Wright	John M. Carter, Hartville.
Montana.	
Beaverhead	L. Elizabeth Sutherland, Dillon.
Big Horn	Lucy Batty, Hardin.
Blaine	Margaret Vanden Chinook.
Broadwater	Opal Cronk, Townsend.
Carbon	Asgaard Haaland, Red Lodge.
Cascade	Jane Keeney, Great Falls.
Chouteau	Elizabeth D. Milliken, Fort Benton.
Custer	Olive H. Lovett, Miles City.
Dawson	Camilla Osborne, Glendive.
Deer Lodge	May Russell, Anaconda.
Fallon	Stella E. Olsen, Baker.
Fergus	Mrs. Lela Baker, Lewistown.
Flathead	Mary Eckstein, Kalispell.
Gallatin	Ida W. Davis, Bozeman.
Granite	Mrs. Lottie T. Irvine, Philipsburg.
Hill	Laura G. Lovett, Havre.
Jefferson	Jennie Carlson, Boulder.
Lewis and Clark	May J. Crichton, Helena.
Lincoln	Carrie M. Spencer, Libby.
Madison	May Bull, Virginia City.
Meagher	Mary J. Davies, White Sulphur Springs.
Mineral	Mrs. M. Leota Wright, Superior.
Missoula	Mabel Lindstadt, Missoula.
Musselshell	Minnie F. Ferguson, Roundup.
Park	Elsie Mercier, Livingston.
Phillips	Flora Sims, Malta.
Powell	Irene Coughlin, Deer Lodge.
Prairie	Mabel R. Williams, Terry.
Ravalli	Katheine Drayton, Hamilton.
Richland	Bell Hoyt, Sidney.
Rosebud	Mrs. C. P. Adams, Forsyth.
Sanders	Gladys Brown, Thompson Falls.
Sheridan	Irene Murphy, Plentywood.
Silver Bow	Julia Shea, Butte.
Stillwater	Gertrude Sylvester, Columbus.
Sweet Grass	Inga Solberg, Big Timber.
Teton	Grace M. Thompson, Chouteau.
Toole	Mrs. Bertha Blacker, Shelby.
Valley	Nellie Johonnott, Glasgow.
Wilbaux	Mrs. Maude Banker-Wills, Wilbaux.
Yellowstone	Frances Miller, Billings.

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V.—County Superintendents of Schools—Continued.

County.	Superintendent.
NEBRASKA.	
Adams	Carrie Sullivan, Hastings.
Antelope	D. M. Murphy, Neligh.
Arthur	Minnie C. Hawkins, Arthur.
Banner	Minnie Larson, Harrisburg.
Blaine	A. L. Samblin, Brewster.
Boone	Hannah C. Johnson, Albion.
Box Butte	Opal Russell, Alliance.
Boyd	Zazel Sloniger, Butte.
Brown	Emma Burritt, Ainsworth.
Buffalo	A. R. Nichols, Kearney.
Burt	W. T. Poucher, Tekamah.
Butler	Oma L. Cady, David City.
Cass	Eda Marquardt, Plattsmouth.
Cedar	Emma Schwerin, Hartington.
Chase	Evea Moreland, Imperial.
Cherry	Edith Adamson, Valentine.
Cheyenne	Anna McFadden, Sidney.
Clay	Mabel E. Kirk, Clay Center.
Collax	F. J. Vogitance, Schuyler.
Cuming	Emma R. Miller, West Point.
Custer	T. C. Grimes, Broken Bow.
Dakota	Wilfred E. Voss, Dakota.
Dawes	Carrie L. Munkres, Chadron.
Dawson	W. C. Bloom, Lexington.
Deuel	Mrs. Retta F. Brown, Chappell.
Dixon	Ray Chase, Ponca.
Dodge	J. M. Matzen, Fremont.
Douglas	W. A. Yoder, Omaha.
Dundy	Lorna L. White, Benkelman.
Fillmore	Lillian D. Green, Geneva.
Franklin	Mrs. Ruth Erfman, Bloomington.
Frontier	G. C. Chadderdon, Stockville.
Furnas	G. W. Fletcher, Beaver City.
Gage	Thomas J. Trauernicht, Beatrice.
Garden	Nellie Olson Stroud, Oshkosh.
Garfield	J. L. Jenkins, Burwell.
Gosper	F. W. Montgomery, Elwood.
Grant	Theo. A. Frye, Hyannis.
Greeley	Margaret L. Tracy, Greeley.
Hall	Dorothea Kolls, Grand Island.
Hamilton	Margaret McConnell, Aurora.
Harlan	Mrs. Mattlene Bragg, McKee, Alma.
Hayes	H. O. Bixler, Hayes Center.
Hitchcock	Ira F. Doling, Trenton.
Holt	Minnie B. Miller, O'Neill.
Hooker	J. H. Garrett, Mullen.
Howard	W. G. Baker, St. Paul.
Jefferson	Henry Abrams, Fairbury.
Johnson	L. C. Kuster, Tecumseh.
Kearney	Oscar Warp, Minden.
Keith	Katherine Feather, Ogalalla.
Keya Paha	George J. Kirsch, Springview.
Kimball	Ethel McElhaney, Kimball.
Knox	A. S. Stinson, Center.
Lancaster	W. H. Gardner, Lincoln.
Lincoln	Aileen Gantt, North Platte.
Logan	Alice Coleman Hill, Gandy.
Loup	Mabel McKimmey, Taylor.
McPherson	O. A. Johnson, Tryon.
Madison	N. A. Housel, Madison.
Merrick	Margaret McCutchen, Central City.
Morrill	Cora A. Thompson, Bridgeport.
Nance	Chloe Baldridge, Fullerton.
Nemaha	John Stoddard, Auburn.
Nuckolls	Elmer L. Seely, Nelson.
Otoe	Chas. Speedie, Nebraska City.
Pawnee	Elsie A. Hammond, Pawnee City.
Perkins	R. H. Vance, Grant.
Phelps	Aletta Neff, Holdrege.
Pierce	Lettie Scott, Pierce.
Platte	Fred S. Lecron, Columbus.
Polk	Amelia Rasmussen, Osceola.
Red Willow	Julia C. Barnes, McCook.
Richardson	D. H. Weber, Falls City.
Rock	Flora Hedges, Bassett.
Saline	L. J. Bouchal, Wilber.
Sarpy	H. A. Collins, Papillion.
Saunders	Mrs. E. B. O. Williams, Wahoo.
Scotts Bluff	Ada Haldeman, Gering.
Seward	W. H. Brokaw, Seward.
Sheridan	C. P. Kelley, Rushville.
Sherman	L. H. Currier, Loup City.
Sioux	Mary J. Fenske, Harrison.
Stanton	Ilah B. Ohlson, Stanton.
Thayer	A. T. Holtzen, Hebron.
Thomas	Clara B. Runyan, Tredford.
Thurston	Carrie J. Kellner, Pender.
Valley	H. L. Cushing, Ord.
Washington	N. T. Lund, Blair.
Wayne	Pearl Sewell, Wayne.
Webster	Gertrude L. Coon, Red Cloud.
Wheeler	Edith Bowler, Bartlett.
York	T. C. Lord, York.
NEVADA.[1]	

Towns.	Superintendents.[2]
NEW HAMPSHIRE.	
Claremont, Charlestown.	William H. Slayton, Claremont.
Colebrook, Errol, Stewartstown, Wentworth Location.	S. H. Williams, Colebrook.
Conway, Madison, Bartlett.	Alonzo Knowlton, North Conway.
Derry, Londonderry.	C. W. Cutts, Derry.
Exeter, Newfields, Kensington, Hampton Falls.	M. S. Brooks, Exeter.
Franklin, Hill	George A. Keith, Franklin.
Goffstown, Bedford, New Boston.	W. L. MacDonald, Goffstown.
Gorham, Randolph, Shelburne.	Jacob E. Wignot, Gorham.
Greenland, Newington, Durham, Rye.	Carl Cotton, Portsmouth.
Hampstead, Raymond, Lee, Epping, Hampton.	Albert T. Lane, Hampton.
Hanover Town, Plainfield.	Catherine A. Dole, Lebanon.
Hillsboro, Antrim, Peterboro.	Frederick L. Kendall, Peterboro.
Hinsdale, Swanzey, Dublin, Winchester.	A. P. Averill, Keene.
Hopkinton, Weare, Dunbarton, Henniker.	Fred S. Libbey, Contoocook.
Lebanon, Enfield	Thomas A. Roberts, Lebanon.
Lisbon, Landaff, Franconia.	John S. Gilman, Lisbon.

[1] No county superintendents. For list of deputy superintendents see list of State school officers, p. 11.
[2] Superintendent of supervisory district composed of towns given. Practically all city superintendents have rural schools under their supervision. See list, p. 53.

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V.—County Superintendents of Schools—Continued.

Towns.	Superintendent.	Towns.	Superintendent.
NEW HAMPSHIRE—continued.		NEW HAMPSHIRE—continued.	
Littleton, Bethlehem Town.	Guy E. Speare, Littleton.	Tilton, Belmont, Gilmanton.	Channing Sanborn, Tilton.
Milford, Amherst, Hollis.	A. W. Smith, Milford.	Troy, Fitzwilliam, Rindge, Jaffrey.	O. H. Toothaker, East Jaffrey.
Newport, New London.	W. H. S. Ellingwood, Newport.	Walpole, Westmoreland, Langdon, and Marlboro.	Everett J. Best, Walpole.
Northwood, Deerfield, Lee.	Walton S. Adams, Northwood.		
Pembroke, Allenstown, Merrimack.	Henry S. Roberts, Suncook.	Whitefield, Jefferson, Bethlehem Special.	Frank W. Jackson, Whitefield.
Penacook and Concord Town District.	George W. Sumner, Penacook.	Wilton, Hancock, Temple, New Ipswich.	Leonard S. Morrison, Wilton.
Pittsfield, Chichester, Loudon.	F. T. Johnson, Pittsfield.	Wolfeboro, Alton, Farmington.	F. U. Landman, Wolfeboro.
Salem, Atkinson, Hudson.	Howard L. Winslow, Salem.	Woodsville, Haverhill, Bath, Monroe.	Norman J. Page, Woodsville.
Somersworth, Newmarket.	Louis De Witt Record, Somersworth.		
Stratford, Northumberland, Columbia.	Orin M. Holman, North Stratford.		

County.	Superintendent.	County.	Superintendent.
NEW JERSEY.		NEW MEXICO—con.	
Atlantic	H. M. Cressman, Egg Harbor City.	Chaves	C. C. Hill, Roswell.
Bergen	B. C. Wooster, Hackensack.	Colfax	Mrs. Josie Lockard, Raton.
Burlington	L. J. Kayser, Mount Holly.	Curry	J. M. Bickley, Clovis.
Camden	C. S. Albertson, Camden.	Dona Ana	Frank M. Hayner, Las Cruces.
Cape May	Aaron W. Hand, Cape May Court House.	Eddy	W. A. Poore, Carlsbad.
Cumberland	J. J. Unger, Bridgeton.	Grant	Miss I. L. Eckles, Silver City.
Essex	Oliver J. Morelock, Newark.	Guadalupe	J. V. Gallegos, Santa Rosa.
Gloucester	D. T. Steelman, Woodbury.	Lincoln	Mrs. Wallace L. Gumm, Carrizozo.
Hudson	Arthur O. Smith, Jersey City.	Luna	Miss G. G. Goebel, Deming.
Hunterdon	J. S. Hoffman, Flemington.	Mora	Manuel Madrid, Mora.
Mercer	J. M. Arnold, Trenton.	McKinley	W. D. Cornell, Gallup.
Middlesex	H. B. Willis, New Brunswick.	Otero	R. S. Tipton, Alamogordo.
Monmouth	C. J. Strahan, Freehold.	Quay	E. Pack, Tucumcari.
Morris	J. H. Hulsart, Morristown.	Rio Arriba	Silviano Roybal, Chamita.
Ocean	C. A. Morris, Toms River.	Roosevelt	Mrs. S. F. Culberson, Portales.
Passaic	E. W. Garrison, Paterson.	Sandoval	Bonifacio Montoya, Bernalillo.
Salem	H. C. Dixon, Salem.	San Juan	J. L. G. Swinney, Aztec.
Somerset	Henry C. Krebs, Somerville.	San Miguel	M. F. Desmarais, Las Vegas.
Sussex	Ralph Decker, Newton.	Santa Fe	J. V. Conway, Santa Fe.
Union	A. L. Johnson, Elizabeth.	Sierra	F. I. Given, Hillsboro.
Warren	Charles Philhower, Belvidere.	Socorro	Benjamin Sanchez, Socorro.
NEW MEXICO.		Taos	Jose Montaner, Taos.
Bernalillo	Atanasio Montoya, Albuquerque.	Torrance	Charles L. Burt, Mountainair.
		Union	H. H. Errett, Clayton.
		Valencia	Saturnino Baca, Belen.

County.	District superintendents.[1]	County.	District superintendents.
NEW YORK.		NEW YORK—contd.	
Albany	E. E. Richmond, Ravena. W. J. Haverly, West Berne. Walter S. Clark, West Albany, R. F. D.	Cattaraugus	Joel J. Crandall, Franklinville. Gilbert A. Farwell, Himsdale.
Allegany	G. W. D'Autremont, Hume. John D. Jones, Cuba. O. M. Burdick, Little Genesee.		C. S. Palmer, Salamanca. G. E. Waller, Little Valley.
	W. H. Garwood, Canaseraga. Willet L. Ward, Wellsville.	Cayuga	E. A. Stratton, Randolph. H. S. R. Murphy, Cato.
Broome	Kasson E. Beilby, Deposit. J. E. Hurlburt, Windsor. H. B. Heath, Ouaquaga.		H. T. Morrison, Wedsport. Mrs. Anna M. Kent, Union Springs.
	Erwin B. Whitney, Whitney Point.		G. B. Springer, Genoa. Mrs. Mabel L. Rodger, Moravia.

[1] The New York supervisory district is a county in four cases, and a part of a county in all other cases.

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V.—County Superintendents of Schools—Continued.

County.	District superintendents.
NEW YORK—contd.	
Chautauqua	J. N. Palmer, Forestville.
	James R. Flagg, Frewsburg.
	Mrs. D. B. Connelly, Stowe.
	J. G. Pratt, Sherman.
	L. Waldo Swain, Westfield.
	J. S. Wright, Falconer.
Chemung	Walter C. King, Horseheads.
	Harriet Easterbrook, Elmira.
Chenango	Ellen E. Baldwin, Lincklaen.
	Albert C. Bowers, New Berlin.
	J. S. Childs, Oxford.
	Jane I. Schenck, Greene.
	Mary L. Isbell, Norwich.
Clinton	Oliver A. Wolcott, Keeseville.
	Ernest B. Sargeant, Ellenburg.
	Clara E. Soden, Mooers Forks.
Columbia	S. B. Smith, East Chatham.
	W. L. Millias, Valatie.
	M. G. Rickey, Clermont.
Cortland	W. K. Patrick, Cuyler.
	Mrs. Ada M. Shuler, McGraw.
	C. D. Carter, Marathon, R. 3.
Delaware	C. W. Vandergrift, Sidney.
	Z. Le R. Myers, Downsville.
	E. O. Harkness, Delhi.
	L. R. Long, Margaretville.
	M. G. Nelson, Franklin.
	A. T. Hamilton, North Harpersfield.
Dutchess	Frank L. Haight, Fishkill.
	F. E. Benedict, La Grangeville.
	Clara E. Drum, Clinton Corners.
	F. O. Green, Tivoli.
Erie	C. A. Heist, Clarence.
	H. A. Dann, Lancaster.
	W. E. Pierce, East Aurora.
	E. D. Ormsby, North Collins.
	W. E. Bensley, Springville.
Essex	C. J. Mousaw, Schroon Lake.
	Gertrude M. Spear, Westport.
	Mattie J. Prime, Upper Jay.
Franklin	Myrtle E. MacDonald, Chateaugay.
	G. La Graff, Tupper Lake.
	F. H. Wilcox, North Bangor.
	Gertrude E. Hyde, Moira.
Fulton	Fred A. Stryker, Stratford.
	C. E. Van Buren, Johnstown.
Genesee	H. W. Dyer, East Pembroke.
	J. L. M. Uphill, Batavia.
Greene	Thos. C. Perry, Catskill.
	R. M. MacNaught, Windham.
	Walter J. Decker, Hunter.
Hamilton	C. B. Hanley, Wells.
Herkimer	A. J. Rose, West Winfield.
	Silas C. Kimm, Dolgeville.
	C. B. Keller, Little Falls.
	B. M. Robinson, Poland.
Jefferson	C. M. Pierce, Adams.
	W. J. Linnell, Brownville.
	T. B. Stoel, Depauville.
	R. W. Bowman, Sacketts Harbor.
	D. D. T. Marshall, Redwood.
	S. Freeman Graves, Philadelphia.
Lewis	Glenn G. Steele, Croghan.
	F. Reid Spaulding, Copenhagen.
	Ruth M. Johnston, Port Leyden.
	A. W. Trainor, West Leyden.
Livingston	John P. Magee, Groveland.
	G. C. McNinch, Conesus.
	R. G. Conklin, Tuscarora.
Madison	Irving S. Sears, Hamilton.
NEW YORK—contd.	
Madison (contd	Clayton J. Wratten, DeRuyter
	E. A. Fuller, Morrisville.
	John B. Harris, Canastota.
Monroe	W. W. Rayfield, Webster.
	M. B. Furman, East Rochester.
	Fred W. Hill, Spencerport.
	John C. Malloch, Churchville.
Montgomery	N. Berton Alter, Nelliston.
	Walter Elwood, Amsterdam.
Nassau	James S. Cooley, Mineola.
	W. C. Mepham, Merrick.
Niagara	M. G. Hoffman, Lewiston.
	Orrin A. Kolb, Lockport, R. F. D. 5.
	W. D. Wisner, Ransomville.
Oneida	Ray P. Snyder, New York Mills.
	Harry C. Buck, Clayville.
	W. J. Lewis, Clinton.
	F. E. Mathewson, Verona.
	Stanton D. Austin, Barneveld.
	Pauline L. Scott, Blossvale.
	Daniel M. Blue, Booneville.
Onondaga	M. E. Hinman, Tully.
	G. T. Fuggle, Jamesville.
	E. E. McDowell, Memphis.
	Manford D. Green, Liverpool.
	Jennie A. Cowles, Skaneateles.
Ontario	Leon J. Cook, East Bloomfield.
	H. S. G. Lovelace, Phelps.
	E. G. Soper, Seneca Castle.
	G. A. Bolles, Naples.
Orange	Theron L. McKnight, Central Valley.
	O. Eichenberg, Monroe.
	S. A. Cortright, Middletown.
Orleans	Mary J. Franklin, Medina, R. F. D.
	Cora V. Luttenton, Albion.
	Mrs. H. F. S. Salisbury, Holley.
Oswego	Mildred G. Pratt, Lacona.
	J. M. Bonner, Richland.
	Mrs. Queenia R. Frawley, Pennellville.
	Charles I. Kingsbury, Mexico.
	W. S. Gardner, Fulton.
Otsego	Grace A. Louden, Cooperstown, R. F. D. 2.
	Menzo Burlingame, Worcester.
	J. B. McManus, Cooperstown.
	John E. Frederick, Portlandville.
	M. R. Porter, Morris.
	Floyd R. Thayer, Edmeston.
Putnam	A. J. Williams, Brewster.
Rensselaer	Mrs. C. B. Clark, Troy.
	Mrs. Adelaide W. Gardner, Stephentown.
	H. G. Grubel, East Greenbush.
Rockland	George W. Miller, Nanuet.
St. Lawrence	W. T. Clark, Hailesboro.
	F. H. Wallace, Morristown.
	Carlos S. Blood, Heuvelton.
	V. C. Warriner, Lisbon.
	Rose M. Libby, Colton.
	Mrs. E. D. Grubb, Norwood.
	E. F. McDonald, Massena.
	A. J. Fields, Winthrop.
Saratoga	A. A. Lavery, Round Lake.
	Lou Messinger, Ballston Spa.
	E. E. Hinman, Schuylerville.
	A. M. Hollister, Corinth.
Schenectady	James Wingate, Schenectady.
Schoharie	Leslie A. Tompkins, Jefferson.
	Silas Springstead, Cobleskill.
	R. W. Eldredge, Sharon Springs.

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V.—County Superintendents of Schools—Continued.

County.	District superintendents.	County.	District superintendents.
NEW YORK—contd.		NEW YORK—contd.	
Schuyler	Alberta Spaulding, Burdett.	Suffolk	P. B. Matthews, Bridgehampton.
	Jennie M. Ellison, Reading Center.		J. Henry Young, Central Islip.
Seneca	W. S. Wilson, Ovid.		Leonard J. Smith, Smithtown Branch.
	Charles B. Earl, Waterloo.	Sullivan	F. J. Lewis, Barryville.
Steuben	Frank H. Smith, Addison.		Charles S. Hick, Jeffersonville.
	Winfred Morrow, Bath.		Mrs. Emma C. Chase, Monticello.
	Howard Harrison, Addison.	Tioga [1]	A. E. Belden, Newark Valley.
	F. C. Wilcox, Greenwood.		M. D. Goodrich, Tioga Center.
	H. M. Brush, Arkport.		H. T. Whittemore, Nichols.
	Guyon J. Carter, Avoca.		
	J. G. McConnell, Prattsburg.		

County.	Superintendent.	County.	Superintendent.
NORTH CAROLINA.		NORTH CAROLINA—continued.	
Alamance	J. B. Robertson, Graham.	Montgomery	W. A. Cochran, Troy.
Alexander	A. F. Sharpe, Stony Point.	Moore	John A. McLeod, Carthage.
Alleghany	J. M. Cheek, Sparta.	Nash	Oscar Creech, Nashville.
Anson	W. C. Bivens, Wadesboro.	New Hanover	W. Catlett, Wilmington.
Ashe	C. M. Dickson, Silas Creek.	Northampton	P. J. Long, Jackson.
Avery	Frank A. Edmonson, Newland.	Onslow	W. M. Thompson, Jacksonville.
Beaufort	W. G. Privette, Washington.	Orange	S. P. Lockhart, Hillsboro.
Bertie	H. W. Early, Windsor.	Pamlico	T. B. Attmore, Stonewall.
Bladen	B. J. Cromartie, Garland.	Pasquotank	W. M. Hinton, Elizabeth City.
Brunswick	M. C. Guthrie, Southport.	Pender	T. T. Murphy, Burgau.
Buncombe	W. H. Hipps, Asheville.	Perquimans	W. G. Gaither, Hertford.
Burke	T. L. Sigmon, Morganton.	Person	J. A. Beam, Roxboro.
Cabarrus	D. S. Lippard, Concord.	Pitt	S. B. Underwood, Greenville.
Caldwell	R. M. Smith, Lenoir.	Polk	E. W. S. Cobb, Columbus.
Camden	F. M. Eason, Camden.	Randolph	T. F. Bulla, Asheboro.
Carteret	L. B. Ennett, Stella.	Richmond	L. J. Bell, Rockingham.
Caswell	G. A. Anderson, Yanceyville.	Robeson	J. R. Poole, Lumberton.
Catawba	George E. Long, Newton.	Rockingham	L. N. Hickerson, Wentworth.
Chatham	F. M. Williamson, Pittsboro.	Rowan	R. G. Kizer, Salisbury.
Cherokee	A. L. Martin, Murphy.	Rutherford	W. R. Hill, Rutherfordton.
Chowan	J. O. Alderman, Edenton.	Sampson	L. L. Matthews, Clinton.
Clay	T. C. Scroggs, Hayesville.	Scotland	L. M. Peele, Laurinburg.
Cleveland	J. Y. Irvin, Shelby.	Stanly	E. F. Eddins, Palmerville
Columbus	F. T. Wooten, Chadbourn.	Stokes	J. T. Smith, King.
Craven	S. M. Brinson, New Bern.	Surry	J. H. Allen, Elkin.
Cumberland	B. T. McBryde, Fayetteville.	Swain	J. M. Smiley, Bryson City
Currituck	R. W. Isley, Currituck.	Transylvania	T. C. Henderson, Brevard
Dare	E. W. Joyner, Manteo.	Tyrrell	J. S. Spruill, Columbia.
Davidson	P. L. Feezor, Lexington.	Union	R. N. Nisbet, Monroe.
Davie	F. P. Bradley, Mocksville.	Vance	E. M. Rollins, Henderson
Duplin	M. H. Wooten, Kenansville.	Wake	D. F. Giles, Raleigh.
Durham	C. W. Massey, Durham.	Warren	H. F. Jones, Warrenton.
Edgecombe	Geo. Howard, jr., Tarboro.	Washington	John W. Darden, Plymouth.
Forsyth	W. B. Speas, Winston-Salem.	Watauga	Smith Hagaman, Vilas.
Franklin	E. L. Best, Louisburg.	Wayne	E. T. Atkinson, Goldsboro.
Gaston	F. P. Hall, Belmont.	Wilkes	C. C. Wright, Hunting Creek.
Gates	T. W. Costen, Gatesville.	Wilson	C. L. Coon, Wilson.
Graham	R. P. Jenkins, Stecoah.	Yadkin	W. D. Martin, East Bend.
Granville	J. F. Webb, Oxford.	Yancey	W. O. Griffith, Windom.
Greene	J. E. Debnam, Snow Hill.	NORTH DAKOTA.	
Guilford	Thos. R. Foust, Greensboro.	Adams	Rose Wagner, Hettinger.
Halifax	A. E. Akers, Roanoke Rapids.	Barnes	Minnie J. Nielson, Valley City.
Harnett	B. P. Gentry, Lillington.	Benson	Peter Anderson, Minnewaukan.
Haywood	R. A. Sentell, Waynesville.	Billings	E. E. McCullough, Medora.
Henderson	W. S. Shitle, Hendersonville.	Bottineau	H. E. Layne, Bottineau.
Hertford	N. W. Britton, Winton.	Bowman	H. O. Saxvik, Bowman.
Hoke	J. A. McGoogan, Raeford.	Burke	C. H. Worf, Bowbells.
Hyde	W. F. Credle, Swan Quarter.	Burleigh	C. L. Vigness, Bismarck.
Iredell	R. M. Gray, Statesville.	Cass	J. W. Riley, Fargo.
Jackson	J. N. Wilson, Cullowhee.	Cavalier	Fred J. Reher, Langdon.
Johnston	L. T. Royall, Smithfield.	Dickey	Clara Flemington, Ellendale.
Jones	John R. Barker, Trenton.	Divide	J. H. Phelps, Crosby.
Lee	E. M. Judd, Sanford.	Dunn	Lois L. Viall, Manning.
Lenoir	Joseph Kinsey, Kinston.	Eddy	H. H. Maxwell, New Rockford.
Lincoln	L. B. Beam, Lincolnton.	Emmons	Lester Briggle, Linton.
Macon	M. D. Billings, Franklin.	Foster	Mary K. Beaty, Carrington.
Madison	G. C. Brown, Marshall.	Golden Valley	Mrs. Jessie L. Kinsey, Beach.
Martin	A. J. Manning, Williamston.	Grand Forks	M. Beatrice Johnstone, Grand Forks.
McDowell	Byron Conly, Marion.		
Mecklenburg	J. M. Matthews, Charlotte.		
Mitchell	D. W. Greene, Wing.		

[1] For additional counties, see p. 199.

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V.—County Superintendents of Schools—Continued.

County.	Superintendent.
NORTH DAKOTA—continued.	
Griggs	I. A. Kampen, Cooperstown.
Hettinger	Margaret Kennedy, Mott.
Kidder	Lydia Hinman, Steele.
Lamoure	Cora E. Sabin, Lamoure.
Logan	Sol R. Eilert, Napoleon.
McHenry	A. C. Berg, Towner.
McIntosh	John J. Laemmle, Ashley.
McKenzie	F. J. Stafferk, Schafer.
McLean	John L. Brekken, Washburn.
Mercer	E. R. Thomas, Stanton.
Morton	W. F. Lorin, Mandan.
Mountrail	V. A. Lovell, Stanley.
Nelson	P. J. Iverson, Lakota.
Oliver	F. E. Karges, Center.
Pembina	Charlotte A. Jones, Cavalier.
Pierce	Sara C. Guss, Rugby.
Ramsey	John A. Haig, Devils Lake.
Ransom	C. E. Cavett, Lisbon.
Renville	Ludvig M. Rockne, Mohall.
Richland	Chas. Hanson, Wahpeton.
Rolette	Mrs. Mary K. Packard, Rolla.
Sargent	Henry Ulve, Forman.
Sheridan	E. O. Kleve, McClusky.
Sioux	L. W. Colebank, Swastika.
Slope	H. H. Rond, Amidon.
Stark	C. E. Ward, Dickinson.
Steele	M. Ellen Johnson, Sherbrooke.
Stutsman	Mary E. McGinnis, Jamestown.
Towner	Mamie Sorenson, Cando.
Traill	Guri Wambheim, Hillsboro.
Walsh	Edward Erickson, Grafton.
Ward	W. D. Wendt, Minot.
Wells	Sennev Nertrost, Fessenden.
Williams	Anna M. Peterson, Williston.
OHIO.	
Adams	H. E. Denning, West Union.
Allen	C. A. Arganbright, Lima.
Ashland	J. N. Pinkerman, Ashland.
Ashtabula	H. D. Clarke, Jefferson.
Athens	Alex. Root, Athens.
Auglaize	V. R. Andrews, Wapakoneta.
Belmont	Geo. M. Pogue, St. Clairsville.
Brown	E. V. Stephan, Georgetown.
Butler	John Schwarz, Hamilton.
Carroll	G. E. Bell, Carrollton.
Champaign	J. C. Neer, Urbana.
Clark	J. M. Collins, Springfield.
Clermont	H. C. Aultman, Batavia.
Clinton	J. L. Cadwallader, Wilmington.
Columbiana	John W. Moore, Lisbon.
Coshocton	L. C. Shaw, Coshockton.
Crawford	F. G. Bittikofer, Bucyrus.
Cuyahoga	A. G. Yawberg, Cleveland.
Darke	C. A. Wilt, Greenville.
Defiance	W. W. Heater, Defiance.
Delaware	Paul M. Lybarger, Delaware.
Erie	R. E. Offenhauer, Sandusky.
Fairfield	C. C. Miller, Lancaster.
Fayette	O. S. Nelson, Washington Court House.
Franklin	Wm. S. Coy, Columbus.
Fulton	C. D. Perry, Wauseon.
Gallia	Wayne Lutz, Gallipolis.
Geauga	Harold Ryder, Chardon.
Greene	F. M. Reynolds, Xenia.
Guernsey	W. G. Wolfe, Cambridge.
Hamilton	Thos. P. Pierce, Cincinnati.
Hancock	A. J. Nowlan, Findlay.
Hardin	F. P. Allyn, Kenton.
Harden	John C. Stiers, Cadiz.
Henry	W. T. Hatcher, Napoleon.
Highland	W. H. Vance, Hillsboro.
Hocking	W. C. Brashares, Logan.
Holmes	F. H. Close, Millersburg.
Huron	O. C. Minnich, Norwalk.
Jackson	M. A. Henson, Jackson.
Jefferson	W. I. Everson, Steubenville.
Knox	W. F. Allgire, Mount Vernon.
OHIO—continued.	
Lake	F. H. Kendall, Painesville.
Lawrence	F. J. Kelley, Ironton.
Licking	Elmer W. Jordan, Newark.
Logan	E. A. Bell, Bellefontaine.
Lorain	W. A. Hiscox, Elyria.
Lucas	J. W. Whitmer, Toledo.
Madison	J. A. Runyan, London.
Mahoning	Jerome Hull, Youngstown.
Marion	Vernon Riegel, Marion.
Medina	G. E. Jenks, Medina.
Meigs	G. H. Crow, Pomeroy.
Mercer	S. Cotterman, Celina.
Miami	L. J. Bennett, Troy.
Monroe	E. C. Felock, Woodsfield.
Montgomery	A. A. Maysilles, Dayton.
Morgan	Clarence G. Johnson, McConnelsville.
Morrow	C. C. Crawford, Mount Gilead.
Muskingum	John S. McGinnis, Zanesville.
Noble	H. L. Bates, Caldwell.
Ottawa	A. O. Dehn, Port Clinton.
Paulding	John C. Berg, Paulding.
Perry	W. J. Bankes, New Lexington.
Pickaway	M. C. Warren, Circleville.
Pike	E. N. Deitrich, Waverly.
Portage	E. O. Pore, Ravenna.
Preble	W. S. Fogarty, Eaton.
Putnam	G. J. Keinath, Ottawa.
Richland	E. W. Bell, Mansfield.
Ross	C. A. Puckett, Chillicothe.
Sandusky	S. A. Harbourt, Fremont.
Scioto	Edw. McCowen, Portsmouth.
Seneca	J. E. Sherck, Tiffin.
Shelby	W. E. Partington, Sidney.
Stark	J. J. Armstrong, Canton.
Summit	C. A. Flickinger, Akron.
Trumbull	J. D. Boetticher, Warren.
Tuscarawas	Chas. Barthelmeh, New Philadelphia.
Union	D. H. Sellers, Marysville.
Van Wert	J. A. Greulach, Van Wert.
Vinton	C. H. Copeland, McArthur.
Warren	Fletcher Hawk, Lebanon.
Washington	M. C. Smith, Marietta.
Wayne	G. U. Baumgardner, Wooster.
Williams	W. A. Salter, Bryan.
Wood	H. E. Hall, Bowling Green.
Wyandot	James H. Grove, Upper Sandusky.
OKLAHOMA.	
Adair	G. M. Hagan, Stilwell.
Alfalfa	J. W. Higginbotham, Cherokee.
Atoka	Virginia McClearey, Atoka.
Beaver	Granville T. Ayres, Beaver.
Beckham	D. P. Lowe, Sayre.
Blaine	Daisy M. Pratt, Watonga.
Bryan	R. K. McIntosh, Durant.
Caddo	C. W. Rasure, Anadarko.
Canadian	Mina Jackson, El Reno.
Carter	L. M. Thurston, Ardmore.
Cherokee	J. Norwood Peterson, Talequah.
Chootaw	J. T. Reed, Hugo.
Cimarron	Zilpha McClain, Boise City.
Cleveland	Kate Barbour, Norman.
Coal	H. M. Shirley, Coalgate.
Comanche	Mrs. Jennett S. Crosby, Lawton.
Cotton	J. Whitt Johnson, Walter.
Craig	Tom W. Smith, Vinita.
Creek	Stella Bayless, Sapulpa.
Custer	Geo. A. Meacham, Arapaho.
Delaware	Clark Bell, Jay.
Dewey	Fred L. Hoyt, Taloga.
Ellis	Mrs. L. M. Lee, Arnett.
Garfield	Jas. W. Tyler, Enid.
Garvin	W. Cromwell, Pauls Valley.
Grady	M. H. Shepard, Chickasha.
Grant	Lew Dervage, Medford.
Greer	Kate Terry, Mangum.

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V.—County Superintendents of Schools—Continued.

County.	Superintendent.
OKLAHOMA—contd.	
Harmon	G. P. Morton, Hollis.
Harper	C. B. Whalen, Buffalo.
Haskell	J. J. Powell, Stigler.
Hughes	H. S. Mathis, Holdenville.
Jackson	W. T. Clark, Altus.
Jefferson	J. M. Dyer, Waurika.
Johnston	T. D. D. Quaid, Tishomingo.
Kay	Mrs. Hattie G. Bush, Newkirk.
Kingfisher	Mrs. Sara Liston, Kingfisher.
Kiowa	J. B. Hendrix, Hobart.
Latimer	C. E. Fair, Wilburton.
Le Flore	Claude B. Norris, Poteau.
Lincoln	O. W. Bass, Chandler.
Logan	Margaret Doolittle, Guthrie.
Love	T. D. Felts, Marietta.
Major	Thos. F. Wright, Fairview.
Marshall	J. R. McClendon, Madill.
Mayes	Geo. O. Tippie, Pryor.
Murray	Nola R. Hill, Sulphur.
Muskogee	E. N. Collette, Muskogee.
McClain	S. M. McCuistion, Purcell.
McCurtain	L. N. Gray, Idabell.
McIntosh	Chas. H. Wilson, Eufaula.
Noble	Geo. F. Dennis, Perry.
Nowata	W. E. Slack, Nowata.
Okfuskee	Geo. F. Durham, Okemah.
Oklahoma	Mrs. Anna Burks-Love, Oklahoma City.
Okmulgee	J. D. Campbell, Okmulgee.
Osage	Mrs. T. L. Lillard, Pawhuska.
Ottawa	J. M. Rowley, Miami.
Pawnee	Leo B. Smith, Pawnee.
Payne	Grace French, Stillwater.
Pittsburg	T. T. Lewis, McAlester.
Pontotoc	W. T. Melton, Ada.
Pottawatomie	H. M. Fowler, Tecumseh.
Pushmataha	W. C. Payne, Antlers.
Roger Mills	Rula Woodruff, Cheyenne.
Rogers	J. C. Dougherty, Claremore.
Seminole	L. L. Sturgeon, Wewoka.
Sequoyah	J. H. Dodson, Sallisaw.
Stephens	L. A. Morton, Duncan.
Texas	L. E. Rathbun, Guymon.
Tilman	E. B. Nelms, Frederick.
Tulsa	H. D. Maxwell, Tulsa.
Wagoner	Chas. Comstock, Wagoner.
Washington	Helen L. Dunaway, Bartlesville.
Washita	J. M. Wallace, Cordell.
Woods	H. P. Bruce, Alva.
Woodward	W. L. Pittman, Woodward.
OREGON.	
Baker	J. F. Smith, Baker.
Benton	R. E. Cannon, Corvallis.
Clackamas	J. E. Calavan, Oregon City.
Clatsop	O. H. Byland, Astoria.
Columbia	J. W. Allen, St. Helens.
Coos	R. E. Baker, Coquille.
Crook	J. E. Myers, Prineville.
Curry	G. W. Smith, Gold Beach.
Douglas	O. C. Brown, Roseburg.
Gilliam	J. C. Sturgill, Condon.
Grant	W. W. Austen, Hamilton.
Harney	L. M. Hamilton, Buchanan.
Hood River	L. B. Gibson, Hood River.
Jackson	J. Percy Wells, Jacksonville.
Jefferson	Mrs. Lillian Watts, Culver.
Josephine	Lincoln Savage, Grants Pass.
Klamath	Fred Peterson, Klamath Falls.
Lake	C. E. Oliver, Lakeview.
Lane	E. J. Moore, Eugene.
Lincoln	R. P. Goin, Toledo.
Linn	W. L. Jackson, Albany.
Malheur	Fay Clark, Vale.
Marion	W. M. Smith, Salem.
Morrow	S. E. Notson, Heppner.
Multnomah	A. P. Armstrong, Portland.
Polk	W. I. Reynolds, Dallas.
Sherman	F. F. Fagan, Moro.
Tillamook	W. S. Buel, Tillamook.

County.	Superintendent.
OREGON—contd.	
Umatilla	I. E. Young, Pendleton.
Union	A. E. Ivanhoe, La Grande.
Wallowa	J. C. Conley, Enterprise.
Wasco	C. T. Bonney, The Dalles
Washington	B. W. Barnes, Hillsboro.
Wheeler	H. J. Simmons, Fossil.
Yamhill	S. S. Duncan, McMinnville.
PENNSYLVANIA.	
Adams	H. Milton Roth, Gettysburg.
Allegheny	Saml. Hamilton, Wilkinsburg.
Armstrong	C. M. Heilman, Kittanning.
Beaver	David C. Locke, Beaver.
Bedford	Lloyd H. Hinkle, Bedford.
Berks	E. M. Rapp, Reading.
Blair	T. S. Davis, Altoona.
Bradford	L. J. Russell, Towanda.
Bucks	J. H. Hoffman, Doylestown.
Butler	F. A. McClung, Butler.
Cambria	M. S. Bents, Ebensburg.
Cameron	C. E. Plasterer, Emporium.
Carbon	J. J. Bevan, Mauch Chunk.
Center	D. O. Etters, State College.
Chester	Thomas A. Bock, Westchester.
Clarion	N. E. Hester, Clarion.
Clearfield	Cyrus A. Weisgerber, Clearfield.
Clinton	I. N. McCloskey, Lock Haven.
Columbia	Wm. W. Evans, Bloomsburg.
Crawford	P. D. Blair, Meadville.
Cumberland	J. Kelso Green, Carlisle.
Dauphin	Frank E. Shambaugh, Lykens
Delaware	A. G. C. Smith, Media.
Elk	J. W. Sweeney, St. Marys.
Erie	I. H. Russell, North East.
Fayette	John S. Carroll, Uniontown.
Forest	J. O. Carson, Tionesta.
Franklin	L. E. Smith, Chambersburg.
Fulton	J. Emery Thomas, McConnellsburg.
Greene	H. D. Freeland, Waynesburg
Huntingdon	L. E. Boyer, Huntingdon.
Indiana	J. F. Chapman, Indiana.
Jefferson	L. Mayne Jones, Brookville.
Juniata	C. E. Kauffman, McAlisterville.
Lackawanna	J. C. Taylor, Scranton.
Lancaster	Daniel Fleisher, Lancaster.
Lawrence	R. G. Leslie, New Castle.
Lebanon	John W. Snoke, Lebanon.
Lehigh	Alvin Rupp, Allentown.
Luzerne	F. P. Hopper, Wilkes-Barre.
Lycoming	G. B. Milnor, Muncy.
McKean	C. W. Lillibridge, Smethport.
Mercer	H. E. McConnell, Mercer.
Mifflin	Lawrence Ruble, McVeytown.
Monroe	Frank Koehler, Stroudsburg.
Montgomery	J. H. Landis, Norristown.
Montour	C. W. Derr, Washingtonville.
Northampton	Geo. A. Grim, Nazareth.
Northumberland	I. H. Mauser, Sunbury.
Perry	D. A. Kline, New Bloomfield.
Pike	L. Westbrook, Matamoras.
Potter	R. O. Welfling, Coudersport.
Schuylkill	L. Seltzer, Pottsville.
Snyder	T. A. Stetler, Middleburg.
Somerset	D. W. Seibert, Somerset.
Sullivan	Harry R. Henning, Lopez.
Susquehanna	Geo. A. Stearns, Kingsley.
Tioga	E. A. Retan, Mansfield.
Union	Wm. W. Spigelmyer, Mifflinburg.
Venango	D. W. Armstrong, Franklin.
Warren	C. S. Knapp, Warren.
Washington	L. R. Crumrine, Washington.
Wayne	J. J. Koehler, Honesdale.
Westmoreland	Robt. C. Shaw, Greensburg.
Wyoming	John E. Morgan, Tunkhannock.
York	C. W. Stine, York.

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V.—County Superintendents of Schools—Continued.

Division.	Superintendent.	Division.	Superintendent.
PHILIPPINE ISLANDS.[1]		PHILIPPINE ISLANDS—con.	
Agusan	C. A. Belknap (acting), Butuan.	Nueva Vizcaya	C. E. Hoye, Bayombong.
Albay	Thos. H. Cassidy, Albay.	Occ. Negros	Harry Borgstadt, Bacolod.
Antique	Geo. W. Satterthwaite (acting), San Jose.	Or. Negros	L. P. Willis (acting), Dumaguete.
Bataan	Honorio Poblador (acting), Balanga.	Palawan	Robert Clanson, Cuyo.
Batangas	G. T. Shoens, Batangas.	Pampanga	S. J. Wright, San Fernando.
Bohol	Oscar H. Charles, Tagbilaran.	Pangasinan	A. W. Cain, Lingayen.
Bukidnon	George C. Kindley (acting), Malaybalay.	Rizal	H. S. Townsend, Pasig.
Bulacan	R. L. Barron, Malolos.	Samar	Jean B. Graham (acting), Catbalogan.
Cagayan	J. C. Scott, Tuguegarao.	Sorsogon	W. B. Beard, Sorsogon.
Camarines	Benjamin Levin, Naga.	Surigao	Geo. M. Egan (acting), Surigao.
Capiz	H. W. Besch (acting), Capiz.	Tarlac	A. C. Derkum, Tarlac.
Cavite	R. G. McLeod, Cavite.	Tayabas	L. R. Sawyer, Lucena.
Cebu	Howard Long, Cebu.	Union	Roy K. Gilmore, San Fernando.
Ilocos Norte	Hugh S. Mead, Laoag.	Zambales	Wm. S. Fickes, Iba.
Ilocos Sur	Edw. J. Murphy, Vigan.	*Department of Mindanao and Sulu.*	
Iloilo	C. E. Wright, Iloilo.		
Isabela	Walter K. Perrett (acting), Ilagan.	Department superintendent.	G. W. Caulkins, Zamboanga.
Laguna	H. M. Wagenblass, Santa Cruz.	Cotabato	Arthur E. Harpst, Cotabato.
Leyte	C. M. Moore, Tacloban.	Davao	W. Ernest Crowe, Davao.
Manila	James F. Scouller, Manila.	Lanao	Oliver Jones (acting), Dansalan.
Mindoro	Camilo Osias, Calapan.	Sulu	Egbert M. Smoyer (acting), Jolo.
Misamis	W. H. H. Liesch (acting), Cagayan.	Zamboanga	Alva M. Templeton, Zamboanga.
Mountain Province.	Sharon R. Mote (acting), Bontoc.		
Nueva Ecija	C. D. Whipple, Cabanatuan.		

Station.	Supervisor.[2]	Station.	Supervisor.
PORTO RICO.		PORTO RICO—con.	
San Juan	Geo. V. Keelan.	Yauco	Francisco Vizcarrondo.
Rio Piedras	Cecil E. Stevens.	San German	Hermenegildo Massó.
Carolina	José C. Rosario.	Cabo Rojo	Alan H. Linch.
Rio Grande	Wm. F. Littlefield.	Mayaguez	Richard B. Barlow.
Fajardo	Charles E. Miner.	Maricao	Servando Rabainne.
Naguabo	Valeriano Flores.	Anasco	Elmer J. Bunting.
Humacao	Marshall D. Rice.	Lares	Clarence J. Walsh.
Yabucoa	Bernardo Huyke.	San Sebastian	Juliet A. Casey.
Arroyo	Ismael Maldonado.	Aguadilla	Luis A. Irizarry.
Juncos	Celestino Benítes.	Isabela	Gerardo Sellés.
Caguas	Francisco Vincenty.	Utuado	John P. Blanco.
Guayama	Cecilio Torres Reyes.	Adjuntas	Zoilo Gracia.
Salinas	Juan E. Castillo.	Camuy	Daniel F. Lynch.
Cayey	Manuel Negrón Collazo.	Arecibo	Frank E. Swart.
Comerio	Samuel D. W. Mills.	Manati	Jos. C. Morin.
Aibonito	Geo. H. Hamor.	Ciales	Rafael Lluch Mattei.
Barros	Don W. Snow.	Vega Baja	J. Gonzalez Ginorio.
Coamo	Victor M. Suárez.	Corozal	Eugenio J. Vivas.
Juana Diaz	Charles J. Kelley.	Toa Baja	Beatriz Lassalle.
Ponce	M. A. Ducout.	Bayamon	Carlos V. Urrutia.
Guayanilla	F. Rodriguez López.		

Town.	Superintendent.	Town.	Superintendent.
RHODE ISLAND.[3]		RHODE ISLAND—continued.	
Charlestown	Irving H. Greene, Kenyon.	Barrington	Chester R. Shaw, Barrington.
East Greenwich	Rev. Samuel W. Irwin, East Greenwich.	New Shoreham	
Exeter	Robert J. Sherman, Exeter.	North Smithfield	Edgar F. Hamlin, M. D., Slatersville.
Foster	James S. Tucker, Foster Center.	Portsmouth	Mrs. Emeline B. Eldredge, Bristol Ferry.
Glocester	Irving C. Mitchell, Chepachet.	Richmond	Charles J. Greene, Kenyon.
Hopkinton	Henry J. Wheeler, Ashaway.	Scituate	Andrew W. Burgess, North Scituate.
Jamestown	Rev. Charles D. Burrows, Jamestown.	Smithfield	See Glocester.
Little Compton	J. Webster Coombs, Little Compton.	West Greenwich	John E. Cole, Escoheag.
Middletown	Joel Peckham, Melville.		

[1] Division superintendents. [2] District supervisors. [3] Town superintendents.

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V.—County Superintendents of Schools—Continued.

County.	Superintendent.
SOUTH CAROLINA.	
Abbeville	J. M. Lawson, Abbeville.
Aiken	C. H. Seigler, Aiken.
Anderson	J. B. Felton, Anderson.
Bamberg	R. W. D. Rowell, Bamberg.
Barnwell	H. J. Crouch, Barnwell.
Beaufort	W. M. Steinmeyer, Beaufort.
Berkeley	L. de C. Porcher, Moncks Corner.
Calhoun	F. G. Crout, St. Matthews.
Charleston	H. H. McCarley, Charleston.
Cherokee	Donald H. Huggin, Gaffney.
Chester	W. D. Knox, Chester.
Chesterfield	R. A. Rouse, Chesterfield.
Clarendon	F. J. Browne, Manning.
Colleton	H. S. Strickland, Walterboro.
Darlington	D. L. Lewis, Darlington.
Dillon	R. S. Rogers, Dillon.
Dorchester	J. A. Parler, St. George.
Edgefield	W. W. Fuller, Edgefield.
Fairfield	W. W. Turner, Winnsboro.
Florence	A. H. Gasque, Florence.
Georgetown	J. W. Doar, Georgetown.
Greenville	J. B. Davis, Greenville.
Greenwood	J. F. Wideman, Greenwood.
Hampton	J. W. Rouse, Hampton.
Horry	S. H. Brown, Conway.
Jasper	S. B. Owens, Ridgeland.
Kershaw	C. W. Birchmore, Camden.
Lancaster	V. A. Lingle, Lancaster.
Laurens	J. H. Sullivan, Laurens.
Lee	J. T. Munnerlyn, Bishopville.
Lexington	H. L. Harmon, Lexington.
Marion	S. J. Wall, Marion.
Marlboro	A. V. Roesel, Bennettsville.
Newberry	Chas. P. Barre, Newberry.
Oconee	Thomas A. Smith, Walhalla.
Orangeburg	L. W. Livingston, Orangeburg.
Pickens	R. T. Hallum, Pickens.
Richland	O. D. Seay, Columbia.
Saluda	J. A. Carson, Saluda.
Spartanburg	B. S. Haynes, Spartanburg.
Sumter	J. H. Haynsworth, Sumter.
Union	Jas. H. Hope, Union.
Williamsburg	J. G. McCullough, Kingstree.
York	J. E. Carroll, York.
SOUTH DAKOTA.[1]	
Aurora	G. R. Gibbs, Plankinton.
Beadle	Hortense Babbitt, Huron.
Bennett	Jessie Maloney, Martin.
Bon Homme	Maud E. Fites, Tyndall.
Brookings	Herbert Blakely, Brookings.
Brown	R. N. Axford, Aberdeen.
Brule	Evalena Rossman, Chamberlain.
Buffalo	Julia Hart, Gann Valley.
Butte	Emma T. Wood, Belle fourche.
Campbell	E. C. Slocum, Mound City.
Charles Mix	Cora E. Stone, Geddes.
Clark	Hattie Pickles, Clark.
Clay	F. Belle Conrow, Vermillion.
Codington	Sara Reeve, Watertown.
Corson	Regina Getman, McIntosh.
Custer	Norma Ilsley-Conner, Custer.
Davidson	Lillie Patterson, Mitchell.
Day	Ira Howell, Webster.
Deuel	C. G. St. John, Clear Lake.
Dewey	J. A. C. Smith, Timber Lake.
Douglas	Altha A. Moad, Armour.
Edmunds	Lillian Theil, Ipswich.
Fall River	Helen Brelsford, Hot Springs.
Faulk	Mrs. Susie P. Swartout, Faulkton.
Grant	Nettie S. Johnson, Milbank.
Gregory	K. H. Cressman, Fairfax.
Haakon	Jennie O'Neal, Philip.
SOUTH DAKOTA—continued.	
Hamlin	G. I. Ruden, Hayti.
Hand	Jessie Moncur, Miller.
Hanson	Jessie Roberston, Alexandria.
Harding	Alice Goggins, Buffalo.
Hughes	Margaret Linden, Pierre.
Hutchinson	W. O. Lamb, Tripp.
Hyde	Mabel Wood, Highmore.
Jackson	L. S. Du Bois, Kadoka.
Jerauld	Will Bromwell, Wessington Springs.
Kingsbury	A. A. Coulson, De Smet.
Lake	Della Sheridan, Madison.
Lawrence	Nellie Warren, Deadwood.
Lincoln	H. M. Dale, Canton.
Lyman	P. P. Bruce, Oacoma
McCook	Nettie M. Ryan, Salem.
McPherson	W. K. Bishop, Leola.
Marshall	Jessie Stewart, Britton.
Meade	Demah Dillehe-Flavin, Sturgis.
Mellette	T. H. Green, White River.
Miner	Edmund Steele, Howard.
Minnehaha	Mrs. Anna M. Eddy, Sioux Falls.
Moody	Mabel Grange, Flandreau.
Pennington	Laura J. Platt, Rapid City.
Perkins	Grace Kroft, Bison.
Potter	Margaret Briscoe, Gettysburg.
Roberts	J. W. Thomas, Sisseton.
Sanborn	A. J. Smalley, Woonsocket.
Spink	E. H. Kahl, Redfield.
Stanley	Elizabeth Myers, Fort Pierre.
Sully	Jessie Livingstone, Onida.
Tripp	Mrs. Sadie Brownlow, Winner.
Turner	Keo King, Parker.
Union	Alice A. Tollefson, Elk Point.
Walworth	E. H. Noteboom, Selby.
Yankton	Theodare Halla, Yankton.
Ziebach	Walter R. Menzel, Dupree.
TENNESSEE.	
Anderson	A. C. Duggins, Clinton.
Bedford	Louis Willhoit, Shelbyville.
Benton	E. J. Clement, Camden.
Bledsoe	John M. Gerren, Pikeville.
Blount	Nancy Lee Broady, Maryville.
Bradley	S. Y. Adcock, Cleveland.
Campbell	Joe Jennings, Jacksboro.
Cannon	W. H. Finley, Woodbury.
Carroll	D. T. Barnhill, Huntingdon.
Carter	J. R. Ritchie, Elizabethton.
Cheatham	P. H. Duke, Ashland City.
Chester	J. W. Stewart, Henderson.
Claiborne	Jennie Burkes, Tazewell.
Clay	R. C. Ledbetter, Willow Grove.
Cocke	O. L. McMahan, Newport.
Coffee	J. G. Warden, Manchester.
Crockett	T. E. Lowery, Alamo.
Cumberland	J. S. Cline, Crossville.
Davidson	W. C. Anderson, Nashville.
Decatur	P. H. Murphy, Decaturville.
Dekalb	J. F. Caplinger, Smithville.
Dickson	R. E. Corlew, Charlotte.
Dyer	R. M. Grills, Dyersburg.
Fayette	D. K. Donnell, Macon.
Fentress	W. E. Mullinix, Jamestown.
Franklin	A. W. Smith, Winchester.
Gibson	J. B. Cummings, Trenton.
Giles	B. H. Gaultney, Pulaski.
Grainger	W. H. Condry, Rutledge.
Greene	Joel N. Pierce, Baileyton.
Grundy	Odus Lusk, Altamont.
Hamblen	W. S. Ivey, Morristown.
Hamilton	Jas. L. Hair, Chattanooga.
Hancock	W. J. Drinnin, Sneedville.
Hardeman	J. D. Turner, Bolivar.
Hardin	C. A. Lowe, Savannah.

[1] "Terms expire Jan. 1, 1917. About half are up for reelection." (Note from State superintendent.)

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V.—County Superintendents of Schools—Continued.

County.	Superintendent.
TENNESSEE—contd.	
Hawkins	Fred H. Parvin, Rogersville.
Haywood	F. R. Ogilvie, Brownsville.
Henderson	W. H. Dennison, Lexington.
Henry	Jos Routon, Paris.
Hickman	G. C. Harville, Centreville.
Houston	D. J. McAulay, Erin.
Humphreys	G. W. McKeel, Waverly.
Jackson	W. L. Dixon, Gainesboro.
James	W. H. Roark, Ooltewah.
Jefferson	Chas. H. Bunch, Dandridge.
Johnson	J. L. Shoun, Mountain City.
Knox	M. W. Wilson, Knoxville.
Lake	R. C. Donaldson, Tiptonville.
Lauderdale	G. G. McLeod, Ripley.
Lawrence	Napoleon Lumpkin, Lawrenceburg.
Lewis	John A. White, Hohenwald.
Lincoln	Jesse Hardin, Fayetteville.
Loudon	J. T. Henderson, Greenback.
McMinn	V. C. McKenzie, Athens.
McNairy	A. H. Grantham, Bethel Springs.
Macon	O. G. Davis, LaFayette.
Madison	W. A. Malone, Jackson.
Marion	D. A. Tate, South Pittsburg.
Marshall	J. G. Stinson, Lewisburg.
Maury	Jno. P. Graham, Culleoka.
Meigs	H. L. Rice, Decatur.
Monroe	J. C. Kimbrough, Madisonville.
Montgomery	E. Buckner, Clarksville.
Moore	Cora Wiseman, Lynchburg.
Morgan	J. N. Johnson, Oakdale.
Obion	C. L. Ridings, Union City.
Overton	C. C. Core, jr. Livingston.
Perry	R. H. Gray, Beardstown.
Pickett	Curtis Holt, Byrdstown.
Polk	W. B. Rucker, Benton.
Putnam	J. M. Hatfield, Cookeville.
Rhea	W. E. Stephens, Dayton.
Roane	E. B. Booth, Kingston.
Robertson	O. H. Bernard, Springfield.
Rutherford	J. D. Jacobs, Murfreesboro.
Scott	M. L. McDonald, Huntsville.
Sequatchie	W. V. Freiley, Dunlap.
Sevier	A. O. DeLozier, Sevierville.
Shelby	Miss Charl Williams, Memphis.
Smith	Lee Huffines, Carthage.
Stewart	W. C. Howell, Dover.
Sullivan	J. H. Akard, Blountsville.
Sumner	T. W. Hunter, Gallatin.
Tipton	L. E. Gwin, Covington.
Trousdale	T. B. Woodmore, Hartsville.
Unicoi	Mrs. Lizzie Roberts, Erwin.
Union	Victor Palmer, Maynardsville.
Van Buren	Mrs. Ella B. Worthington, Spencer.
Warren	E. B. Etter, Irving College.
Washington	E. S. DePew, Jonesboro.
Wayne	Jno. W. Gallien, Waynesboro.
Weakley	F. Y. Fuqua, Dresden.
White	J. W. McPeak, Sparta.
Williamson	Fred J. Page, Franklin.
Wilson	W. H. Knox, Watertown.
TEXAS.	
Anderson	E. F. Rollins, Palestine.
Andrews	F. M. Smith, Andrews.
Angelina	J. O. Satterwhite, Lufkin.
Aransas	Roy Jackson, Rockport.
Archer	J. S. Melugin, Archer City.
Armstrong	H. L. Mobley, Claude.
Atascosa	H. D. Rhodes, Jourdanton.
Austin	L. H. Baron, Bellville.
Bailey	B. D. Woodlee, Dimmitt.
Bandera	Sam O'Bryant, Bandera.
Bastrop	Nat G. Mitchell, Bastrop.
Baylor	T. J. North, Seymour.
TEXAS—continued.	
Bee	Pattie Reagan, Beeville.
Bell	P. L. Stone, Belton.
Bexar	P. F. Stewart, San Antonio.
Blanco	Wm. Martiny, Johnson City.
Borden	C. E. Reeder, Gail.
Bosque	H. C. Powell, Meridian.
Bowie	C. A. Bonham, Boston.
Brazoria	R. R. Sebring, Angleton.
Brazos	W. L. Powers, Bryan.
Brewster	A. M. Turney, Alpine.
Briscoe	C. B. Richards, Silverton.
Brooks	J. A. Brooks, Falfurrias.
Brown	R. A. McLesky, Brownwood.
Burleson	T. A. Schoffe, Caldwell.
Burnet	J. R. Smith, Burnet.
Caldwell	John N. Gambrell, jr., Lockhart.
Calhoun	F. M. Dudgeon, Port Lavaca.
Callahan	S. E. Settle, Baird.
Cameron	J. J. Callanway, Brownsville.
Camp	W. N. Tucker, Pittsburg.
Carson	A. Callaghan, Panhandle.
Cass	R. H. Harvey, Linden.
Castro	B. D. Woodlee, Dimmitt.
Chambers	W. B. Gordon, Anahuac.
Cherokee	H. T. Brown, Rusk.
Childress	O. V. Vernon, Childress.
Clay	J. R. Carter, Henrietta.
Cochran	Roscoe Wilson.
Coke	D. I. Durham, Robert Lee.
Coleman	J. C. Griffen, Coleman.
Colin	W. S. Smith, McKinney.
Collingsworth	A. C. Nicholson, Wellington.
Colorado	B. H. Meinert, Columbus.
Comal	Adolf Stein, New Braunfels.
Comanche	Mrs. J. E. Deely, Comanche.
Concho	Jas. E. Howze, Paint Rock.
Cooke	F. J. Clement, Gainesville.
Coryell	J. C. McKelvy, Gatesville.
Cottle	W. O. Jones, Paducah.
Crockett	C. E. Davidson, Ozona.
Crosby	Pink L. Parrish, Crosbyton.
Culberson	J. C. Hunter, Van Horn.
Dallam	Lawrence Ashly, Dalhart.
Dallas	B. M. Hudspeth, Dallas.
Dawson	Geo. W. Foster, Lamesa.
Deaf Smith	J. A. Hughes, Hereford.
Delta	W. B. Wheeler, Cooper.
Denton	L. H. Edwards, Denton.
De Witt	L. G. Covey, Cuero.
Dickens	Walter L. Powell, Dickens.
Dimmitt	J. O. Rouse, Carrizo Springs.
Donley	J. C. Killough, Clarendon.
Duval	G. A. Parr, San Diego.
Eastland	R. E. Sikes, Eastland.
Ector	E. V. Graham, Odessa.
Edwards	A. P. Allison, Rock Springs.
Ellis	W. S. Ely, Waxahachie.
El Paso	Myra Winkler, El Paso.
Erath	Maud Cunningham, Stephensville.
Falls	G. A. Pringle, Marlin.
Fannin	Frank Young, Bonham.
Fayette	G. A. Stierling, La Grange.
Fisher	W. C. Martin, Roby.
Floyd	E. P. Thompson, Floydada.
Foard	G. L. Burk, Crowell.
Fort Bend	Herman Beyer, Richmond.
Franklin	O. L. Reaves, Mount Vernon.
Freetone	Carl Williford, Fairfield.
Frio	A. J. Cook, Pearsall.
Gaines	W. R. Slaton, Seminole.
Galveston	T. B. Blackstone, Galveston.
Garza	A. H. Anderson, Post City.
Gillespie	A. H Kneese, Fredericksburg.
Glasscock	C. W. Cunningham, Garden City.
Goliad	G. M. Jones, Goliad.
Gonzales	J. C. Cochran, Gonzales.
Gray	T. M. Wolfe, Lefors.

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V.—County Superintendents of Schools—Continued.

County.	Superintendent.
TEXAS—continued.	
Grayson	J. A. Giles, Sherman.
Gregg	Walter E. Jones, Longview.
Grimes	M. A. McDonald, Anderson.
Guadalupe	J. F. Saegert, Seguin.
Hale	Charles Clement, Plainview.
Hall	M. E. McNaly, Memphis.
Hamilton	A. T. Jones, Hamilton.
Hansford	S. B. Hale, Hansford.
Hardeman	L. M. Davis, Quanah.
Hardin	R. P. Gibbs, Kountze.
Harris	L. L. Pugh, Houston.
Harrison	C. W. La Grone, Marshall.
Hartley	J. H. Phillips, Channing.
Haskell	J. R. Hutto, Haskell.
Hays	John H. Saunders San Marcos.
Hemphill	J. L. Jennings, Canadian.
Henderson	W. R. Thomas, Athens.
Hidalgo	J. S. Bunn, Edinburg.
Hill	Leon Culberson, Hillsboro.
Hockley	Roscoe Wilson, Lubbock.
Hood	W. L. Dean, Granbury.
Hopkins	Dan J. Thompson, Sulphur Springs.
Houston	Jno. N. Snell, Crockett.
Howard	S. E. Penix, Big Springs.
Hunt	E. P. Thomas, Greenville.
Hutchison	C. Travis, Plemons.
Irion	W. F. Fikes, Sherwood.
Jack	J. W. Fulcher, Jacksboro.
Jackson	W. W. McCrary, Edna.
Jasper	B. T. Withers, Jasper.
Jeff Davis	W. J. Ward, Fort Davis.
Jefferson	Homer C. Daniel, Beaumont.
Jim Hogg	A. M. Brumfield, Hebbronville.
Jim Wells	T. L. Barnhouse, Alice.
Johnson	G. S. Tomas, Cleburne.
Jones	C. L. Prichard, Anson.
Karnes	L. P. Lightsey, Karnes City.
Kaufman	Florence Conner, Kaufman.
Kendall	J. W. Lawhon, Boerne.
Kent	B. P. Vardiman, Clairemont
Kerr	Lee Wallace, Kerrville.
Kimble	J. B. Randolph, Junction City.
King	J. F. Witherspoon, Guthrie.
Kinney	Joseph Veltman, Brackettville.
Kleburg	Ben F. Wilson, Kingsville.
Knox	W. M. Moore, Benjamin.
Lamar	J. A. Fulks, Paris.
Lamb	L. E. Ensign, Olton.
Lampasas	J. F. Higgins, Lampasas.
La Salle	C. C. Thomas, Cotulla.
Lavaca	William Eilers, Hallettsville.
Lee	C. M. Bishop, Giddings.
Leon	W. R. Moore, Centerville.
Liberty	P. S. Newberry, Liberty.
Limestone	T. L. Pritchard, Groesbeck.
Lipscomb	W. H. Sewell, Lipscomb.
Live Oak	W. W. Caves, Oakville.
Llano	Ernest Moore, Llano.
Loving	Howell Johnson, Pecos.
Lubbock	Roscoe Wilson, Lubbock.
Lynn	C. H. Cain, Tahoka.
Madison	J. T. Cony, Madisonville.
Marion	Alice Emmert, Jefferson.
Martin	A. G. Odam, Stanton.
Mason	Glenn W. Smith, Mason.
Matagorda	W. F. Pack, Bay City.
Maverick	Ben V. King, Eagle Pass.
McCulloch	E. L. White, Brady.
McLennan	R. L. Abbott, Waco.
McMullen	D. B. Martin, Tilden.
Medina	W. N. Saathoff, Hondo.
Menard	J. D. Scruggs, Menard.
Midland	J. M. De Armond, Midland.
Milam	J. F. Chadwick, Cameron.
Mills	R. B. Weaver, Goldthwaite.
Mitchell	J. H. Bullock, Colorado.
TEXAS—continued.	
Montague	I. B. Williams, Montague.
Montgomery	Bessie Smith, Conroe.
Moore	J. W. Fox, Dumas.
Morris	G. E. Shive, Dangerfield.
Motley	A. B. Crane, Matador.
Nacogdoches	G. B. Layton, Nacogdoches.
Navarro	J. B. Davis, Corsicana.
Newton	J. B. Stripling, Newton.
Nolan	A. D. Ellis, Sweetwater.
Nueces	Nat Benton, Corpus Christi.
Ochiltree	R. T. Carrell, Ochiltree.
Oldham	T. B. Jones, Tascosa.
Orange	D. C. Bland, Orange.
Palo Pinto	E. L. Pitts, Palo Pinto.
Panola	R. E. Carswell, Carthage.
Parker	W. V. Shadle, Weatherford.
Parmer	James D. Hamlin, Farwell.
Pecos	Howell Johnson, Fort Stockton.
Polk	J. H. Taylor, Livingston.
Potter	W. C. Gee, Amarillo.
Presidio	W. M. Ellison, Marfa.
Rains	W. B. Rabb, Emory.
Randall	A. R. Flesher, Canyon.
Reagan	W. W. Pittman, Stiles.
Real	W. H. Carr, Leakey.
Red River	S. E. Clark, Clarksville.
Reeves	Jas. F. Ross, Pecos.
Refugio	Leslie Adkins, Refugio.
Roberts	J. E. Kinney, Miami.
Robertson	Clara Story, Franklin.
Rockwall	J. W. Reese, Rockwall.
Runnels	E. L. Hagan, Ballinger.
Rusk	G. C. Padgett, Henderson.
Sabine	Jno. Harper, Hemphill.
San Augustine	Willie E. Mathews, San Augustine.
San Jacinto	Wm. McMurrey, Cold Springs.
San Patricio	C. E. Wade, Sinton.
San Saba	Dor W. Brown, San Saba.
Schleicher	Geo. M. Brown, Eldorado.
Scurry	B. D. Black, Snyder.
Shackelford	J. A. King, Albany.
Shelby	J. B. Hammer, Center.
Sherman	J. H. Blackwell, Stratford.
Smith	E. J. Burns, Tyler.
Somervell	S. G. Tankersley, Glen Rose.
Starr	Sam P. Vale, Rio Grande City.
Stephens	Jesse R. Smith, Breckenridge.
Sterling	Jeff D. Ayres, Sterling City.
Stonewall	T. R. Webb, Aspermont.
Sutton	E. S. Briant, Sonora.
Swisher	W. S. Tomlinson, Tulia.
Tarrant	G. T. Bludworth, Fort Worth.
Taylor	J. S. Smith, Abilene.
Terrell	J. B. Ross, Sanderson.
Terry	W. W. Price, Brownfield.
Throckmorton	B. F. Thorp, Throckmorton.
Titus	Jno. Myers, Mount Pleasant.
Tom Green	C. E. Springstein, San Angelo.
Travis	Leon Halden, Austin.
Trinity	J. C. Ingram, Groveton.
Tyler	G. E. Neel, Woodville.
Upshur	B. B. Elder, Gilmer.
Upton	H. B. Griffith, Upland.
Uvalde	James Matthews, Uvalde.
Valverde	Josephine Jones, Del Rio.
Van Zandt	C. H. Cox, Canton.
Victoria	G. M. Crutsinger, Victoria.
Walker	C. A. Bennick, Huntsville.
Waller	Alice Cameron, Hempstead.
Ward	Burch Carson, Barstow.
Washington	W. F. A. Boemer, Brenham.
Webb	B. Richardson, Laredo.
Wharton	J. R. Peale, Wharton.
Wheeler	L. D. Miller, Wheeler.
Wichita	E. C. Hall, Wichita Falls.
Wilbarger	L. A. Hallar, Vernon.
Willacy	Avery T. Searle, Sarita.
Williamson	Thos. E. Lee, Georgetown.

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V.—County Superintendents of Schools—Continued.

County.	Superintendent.
TEXAS—continued.	
Wilson	J. E. Swift, Floresville.
Winkler	A. T. Crawford, Kermit.
Wise	Brandon Trussell, Decatur.
Wood	J. R. Clark, Quitman.
Yoakum	R. P. Moreland, Plains.
Young	D. K. Lyon, Graham.
Zapata	A. P. Spohn, Zapata.
Zavala	O. A. Stubbs, Batesville.
UTAH.	
Beaver	E. H. White, Beaver.
Box Elder	D. C. Jensen, Brigham City.
Cache	R. V. Larson, Logan.
Carbon	S. W. Golding, Price.
Davis	H. C. Burton, Farmington.
Duchesne	J. A. Washburn, Duchesne.
Emery	W. T. Reid, Orangeville.
Garfield	F. G. Gardiner, Panguitch.
Grand	C. A. Johnson, Moab.
Iron	L. J. Nuttall, jr., Cedar City.
Juab:	
Juab district	Ray Stewart, Nephi.
Tintic district	I. L. Williamson, Eureka.
Kane	F. R. Major, Kanab.
UTAH—continued.	
Millard	R. E. Hammond, Hinckley.
Morgan	G. A. Seaman, Morgan.
Piute	D. H. Robinson, Junction.
Rich	Malcolm McKinnon, Randolph.
Salt Lake:	
Granite district	C. H. Skidmore, Salt Lake.
Jordan district	Orson Ryan, Midvale.
San Juan	J. B. Harris, Grayson.
Sanpete:	
North district	J. W. Anderson, Mt. Pleasant.
South district	E. T. Reid, Manti.
Sevier	I. B. Ball, Richfield.
Summit	J. L. Kearns, Park City.
Tooele	J. U. Hicks, Grantsville.
Uintah	Earl Thompson, Vernal.
Utah:	
Alpine district	W. K. Hopkins, Lehi.
Nebo district	J. P. Creer, Spanish Fork.
Wasatch	D. A. Broadbent, Heber City.
Washington	A. K. Hafen, St. George.
Wayne	Joseph Eckersley, Loa.
Weber	W. N. Petterson, Ogden.

Town.[1]	Superintendent.[1]
VERMONT.[2]	
Bristol	John O. Baxendale.
Proctor	William A. Beebe.
Wallingford	Leon E. Bell.
Williamstown	Charles R. Beeman.
Chester	Percy H. Blake.
West Charleston	Edwin S. Boyd.
Lunenburg	Bert B. Burbank.
East Barnet	Harvey Burbank.
North Montpelier	Joseph W. Butterfield.
Alburg	Fred E. Cargill.
Springfield	Herbert D. Casey.
Burlington	Merritt D. Chittenden.
Bradford	Edward L. Clark.
Bellows Falls	B. E. Merriam.
Craftsbury	Clarence L. Cowles.
Hyde Park	Harold P. Crosby.
Lyndonville	Harlow G. Leavens.
Canaan	Lyman M. Darling.
Ludlow	Edward H. Dorsey.
Brandon	Bennett C. Douglass.
Middlebury	Arthur W. Eddy.
Shoreham	Eugene L. Eddy.
Rochester	Samuel H. Erskine.
Barton	Clayton L. Erwin.
Waterbury	W. H. Darrow.
Richford	Edwin F. Greene.
Newport	Ernest A. Hamilton.
East Fairfield	Sidney C. Harding.
Shelburne	William G. Hartin.
Essex Junction	Minnie E. Hayes.
Fair Haven	Willis H. Hosmer.
Morrisville	Carlton D. Howe.
Swanton	Homer E. Hunt.
Northfield	J. Allen Hunter.
VERMONT—contd.	
Montpelier	Sherburn C. Hutchinson.
West Burke	Garfield A. Jamieson.
Derby	Margaret R. Kelley.
Plainfield	Walter B. Lance.
Castleton	Philip R. Leavenworth.
Rutland	David B. Locke.
West Pawlet	Nathaniel N. Love.
Londonderry	Clarence E. Michels.
North Troy	William C. McGinnis.
South Strafford	Charles P. McKnight.
Guilford	Harold E. Moffitt.
Randolph	George W. Patterson.
Woodstock	Everett V. Perkins.
Richmond	Horatio S. Read.
Readsboro	Frank E. Sawyer.
South Barre	George J. Seager.
Vergennes	Harry A. Farrar.
Wells River	Leonard D. Smith.
Windsor	George L. Spaulding.
Putney	Bates E. Stover.
South Royalton	Merle A. Sturtevant.
Milton	C. O. Turner.
Bennington	Albert W. Varney.
Enosburg Falls	Frederick W. Wallace.
Brattleboro	Florence M. Wellman.
Barre	Carroll H. White.
White River Junction.	Nelson J. Whitehill.
Townshend	George B. Whitney.
South Shaftsbury	John D. Whittier.
St. Albans	George S. Wright.
Cambridge	Myron D. Young.
St. Johnsbury	Walter H. Young.

[1] Union superintendents of groups of towns; town named is address of superintendent.
[2] For other superintendents of Vermont, see p. 59.

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V.—County Superintendents of Schools—Continued.

County.	Superintendent.
VIRGINIA.[1]	
Accomac	G. G. Joynes, Onancock.
Albemarle	H. M. McManaway, Charlottesville.
Alexandria	Geo. W. Zachary, Rosslyn.[2]
Alleghany	J. G. Jeter, Covington.
Amelia	C. B. Bowry, Burkeville.
Amherst	C. L. Scott, Amherst.
Appomattox	N. R. Featherston, Vera.
Augusta	F. M. Somerville, Staunton, R. F. D. 6.
Bath	Bruce R. Richardson, Hot Springs.
Bedford	C. M. Abbot, Bedford City.
Bland	Frank L. Dunn, Bland.
Botetourt	Cary Breckenridge, Fincastle.
Brunswick	R. Lee Chambliss, Lawrenceville.
Buchanan	W. L. Ownbey, Grundy.
Buckingham	John A. Twyman, Wingina, R. F. D.
Buena Vista	J. P. McCluer, Buena Vista.
Campbell	W. L. Garbee, Lawyers.
Caroline	John Washington, Milford.
Carroll	E. M. Cooley, Woodlawn.
Charles City	A. C. Cooper, Toano.
Charlotte	S. P. Daniel, Drakes Branch.
Chesterfield	Philip M. Tyler, Chester.
Clarke	C. G. Massey, White Post.
Craig	W. O. Martin, New Castle.
Culpeper	J. M. Beckham, Culpeper.
Cumberland	C. W. Dickinson, jr., Cartersville.
Dickenson	I. E. French, Clintwood.
Dinwiddie	E. C. Powell, McKenney.
Elizabeth City	John M. Willis, Hampton.
Essex	W. G. Rennolds, Center Cross.
Fairfax	M. D. Hall, Burke.
Fauquier	E. Albert Smith, Warrenton.
Floyd	Isaac L. Epperly, Floyd.
Fluvanna	T. H. Shepherd, Wilmington.
Franklin	W. D. Rucker, Rocky Mount.
Frederick	M. M. Lynch, Winchester.
Giles	R. H. Farrier, Newport.
Gloucester	R. A. Folkes, Gloucester.
Goochland	C. W. Dickinson, jr., Cartersville.
Grayson	G. F. Carr, Galax.
Greene	J. N. Miller, Haywood.
Greensville	Henry Maclin, North Emporia.
Halifax	H. J. Watkins, South Boston.
Hanover	John H. Wickham, Beaver Dam.
Henrico	J. D. Harris, Richmond.
Henry	W. B. Gates, Martinsville.
Highland	Bruce R. Richardson, Hot Springs.
Isle of Wight	Gavin Rawls, Carrsville.
James City	A. C. Cooper, Toano.
King and Queen	W. G. Rennolds, Center Cross.
King George	D. F. Coakley, Ferrell.
King William	H. Ragland Eubank, Etna Mills.
Lancaster	Frank W. Lewis, Morattico.
Lee	J. C. Boatright, Jonesville.
Loudoun	W. G. Edmondson, Purcellville.
Louisa	Frank T. West, Louisa.
Lunenburg	I. T. Wilkinson, Kenbridge.
Madison	J. N. Miller, Haywood.
Mathews	E. C. Percifull, Nesting.
Mecklenburg	F. C. Bedlinger, Boydton.
Middlesex	E. C. Percifull, Nesting.
Montgomery	J. H. Stephens, Christiansburg.
Nansemond	J. B. L. De Jarnette, Driver.
Nelson	H. T. Harris, Lovingston.
New Kent	A. C. Cooper, Toano.
Norfolk	A. H. Foreman, Norfolk.
Northampton	E. G. Tankard, Nassawadox.
Northumberland	F. W. Lewis, Morattico.
Nottoway	C. B. Bowry, Burkeville.
Orange	C. P. Cowherd, Gordonsville.
Page	John H. Booton, Luray.
Patrick	J. Fay Reynolds, Stuart.
Pittsylvania	Fletcher B. Watson, Chatham.
Powhatan	J. W. Reynolds, Powhatan.
Prince Edward	P. T. Atkinson, Hampden-Sidney.
Prince George	A. B. Bristow, Hopewell.
Princess Anne	O. B. Mears, Norfolk, R. F. D. 2.
Prince William	Chas. R. McDonald, Gainesville.
Pulaski	E. L. Darst, Dublin.
Rappahannock	John H. Booton, Luray.
Richmond	Blake T. Newton, Hague.
Roanoke	R. E. Cook, Salem.
Rockbridge	E. K. Paxton, Lexington.
Rockingham	G. H. Hulvey, Harrisonburg.
Russell	H. W. Fugate, Fugates Hill.
Scott	W. D. Smith, Gate City.
Shenandoah	C. B. Shoemaker, Woodstock.
Smyth	B. E. Copenhaver, Marion.
Southampton	G. L. H. Johnson, Franklin.
Spotsylvania	James Ashby, Falmouth.
Stafford	Do.
Surry	L. N. Savedge, Alliance.
Sussex	A. B. Bristow, Hopewell.
Tazewell	W. A. Thompson, Tazewell.
Warren	T. V. Leach, Front Royal.
Warwick	A. J. Renforth, Grafton.
Washington	W. J. Edmondson, Lodi.
Westmoreland	Blake T. Newton, Hague.
Wise	J. N. Hillman, Coeburn.
Wythe	Geo. R. Huffard, Wytheville.
York	A. J. Renforth, Grafton.
WASHINGTON.	
Adams	Elizabeth M. Meyer, Ritzville.
Asotin	A. A. Alvord, Asotin.
Benton	A. C. Jones, Prosser.
Chelan	E. C. Bowersox, Wenatchee.
Clallam	Thos. Geisness, Port Angeles.
Clarke	W. E. Dudley, Vancouver.
Columbia	Mrs. Maud L. Tucker, Dayton.
Cowlitz	Lucia Jenkins, Kalama.
Douglas	L. L. Sellers, Waterville.
Ferry	Mrs. A. L. V. Flood, Republic.
Franklin	Geo. W. Zent, Pasco.
Garfield	Belva L. Ball, Pomeroy.
Grant	R. L. Blackburn, Ephrata.
Grays Harbor	J. W. Hodge, Montesano.
Island	Mrs. Evelyn Spencer, Coupeville.
Jefferson	Edith Delanty, Port Townsend.
King	M. E. Durham, Seattle.
Kitsap	H. W. Elliott, Port Orchard.
Kittitas	Mrs. M. A. Boedcher, Ellensburg.
Klickitat	Mabel H. Hinshaw, Goldendale.
Lewis	A. C. Canterbury, Chehalis.
Lincoln	J. R. Ward, Davenport.
Mason	Mrs. Anna Kimmel Melvin, Shelton.
Okanogan	Georgian Donald, Okanogan.
Pacific	Angus Jack, South Bend.
Pend Oreille	Fannie Dunwoodie, Newport.
Pierce	H. R. Cox, Tacoma.
San Juan	Mayme Sinnott, Friday Harbor.
Skagit	O. H. Kerns, Mount Vernon.
Skamania	Mrs. Lillie Miller, Stevenson.
Snohomish	Mrs. R. A. Small, Everett.
Spokane	Jean S. Donaldson, Spokane.

[1] Division superintendents. The divisions are single counties in 80 cases and composed of two counties each in 10 cases.
[2] Acting.

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V.—County Superintendents of Schools—Continued.

County.	Superintendent.
WASHINGTON—con.	
Stevens	Elizabeth Stannard, Colville.
Thurston	O. C. Goss, Olympia.
Wahkiakum	W. W. Head, Cathlamet.
Walla Walla	Paul Johnson, Walla Walla.
Whatcom	Ethel Everett, Bellingham.
Whitman	Daisy Busbey, Colfax.
Yakima	Rodney Ackley, North Yakima.
WEST VIRGINIA.	
Barbour	E. A. Hunt, Bellington.
Berkeley	Chas. W. Crowell, Hedgesville.
Boone	W. W. Nelson, Turtle Creek.
Braxton	J. H. Hutchison, Sutton.
Brooke	T. A. Burton, Wellsburg.
Cabell	Edward Mays, Huntington.
Calhoun	A. E. Weaver, Grantsville.
Clay	Roscoe Mullins, Clay.
Doddridge	L. L. Sadler, West Union.
Fayette	J. W. Cavendish, Fayetteville.
Gilmer	J. E. Hays, Glenville.
Grant	H. F. Groves, Petersburg.
Greenbrier	W. F. Richardson, Lewisburg.
Hampshire	Arthur Slonaker, Dillons Run.
Hancock	H. O. Miller, New Cumberland.
Hardy	E. A. Hawse, Baker.
Harrison	Carl S. Lawson, Clarksburg.
Jackson	P. H. Rardin, Ripley.
Jefferson	James Grantham, Kearneysville, R. No. 1.
Kanawha	Geo. W. Jenkins, jr., Charleston.
Lewis	Ellis L. Smith, Weston.
Lincoln	Fisher B. Adkins, Hamlin.
Logan	L. E. Browning, Logan.
Marion	Homer C. Toothman, Fairmont.
Marshall	H. W. McDowell, Glen Easton.
Mason	M. E. Roach, Point Pleasant.
Mercer	J. A. French, Princeton.
Mineral	Richard W. Thrush, Keyser.
Mingo	Chas. H. Ellis, Williamson.
Monongalia	Lynn Hastings, Morgantown.
Monroe	W. W. Baker, Union.
Morgan	G. F. Fearnow, Berkeley Springs.
McDowell	W. C. Cook, Welch.
Nicholas	E. W. Skaggs, Summersville.
Ohio	J. H. Lazear, Fulton, Wheeling.
Pendleton	Jesse H. Cook, Circleville.
Pleasants	G. C. MacTaggart, Eureka.
Pocahontas	B. B. Williams, Marlinton.
Preston	M. E. Martin, Kingwood.
Putnam	Henry C. Hill, Winfield.
Raleigh	W. S. Rogers, Beckley.
Randolph	Troy B. Wilmoth, Elkins.
Ritchie	Austin Dotson, Harrisville.
Roane	I. B. Boggs, Wallback.
Summers	Lee Harper, Hinton.
Taylor	Roy J. Martin, Grafton.
Tucker	C. R. Parsons, Parsons.
Tyler	J. T. Fonner, Middlebourne.
Upshur	B. H. Carpenter, Buckhannon.
Wayne	O. J. Rife, Wayne.
Webster	Sampson N. Miller, Webster Springs.
Wetzel	D. L. Haught, New Martinsville.
Wirt	Ross Wilson, Elizabeth.
Wood	H. A. Langfitt, Parkersburg.
Wyoming	J. H. Cooper, Windom.
WISCONSIN.	
Adams	Florence Billings, Friendship.
Ashland	W. P. Hagman, Mellen.
Barron	L. S. Cheney, Barron.
Bayfield	Jessie N. Smith, Washburn.
Brown	L. J. Martell, Green Bay.
Buffalo	H. J. Niehaus, Alma.
Burnett	O. H. Caspers, Grantsburg.
Calumet	Wm. F. Stauss, Chilton.
Chippewa	Bertha Trudelle, Chippewa Falls.
Clark	Elizabeth Kennedy, Neillsville.
Columbia	Mary B. Clark, Portage.
Crawford	George Burton, Eastman.
Dane:	
First district	Sylvanus Ames, Stoughton.
Second district	M. L. Barkley, Mount Horeb.
Dodge	John Kelley, Juneau
Door	Millard Tufts, Sturgeon Bay.
Douglas	Olga Larson, Superior.
Dunn	Dona A. Taylor, Menomonie.
Eau Claire	Lillia E. Johnson, Eau Claire.
Florence	S. D. Macomber, Florence.
Fond du Lac	Morvan Duel, Fond du Lac.
Forest	G. W. Weldon, Crandon.
Grant	E. C. Brick, Lancaster.
Green	John N. Burns, Monroe.
Green Lake	George V. Kelley, Princeton.
Iowa	Jesse A. Van Natta, Dodgeville.
Iron	Della C. Emunson, Hurley.
Jackson	Mrs. N. R. McNab, Taylor.
Jefferson	A. J. Thorne, Jefferson.
Juneau	Myrta D. Cuenot, Mauston.
Kenosha	J. J. Kerwin, Silver Lake.
Kewaunee	Chas. F. Teske, Kewaunee.
La Crosse	B. F. Oltman, West Salem.
La Fayette	W. W. Woolworth, Darlington.
Langlade	A. M. Arveson, Antigo.
Lincoln	W. L. Holden, Merrill.
Manitowoc	C. W. Meismest, Manitowoc.
Marathon	J. E. Giessel, Wausau.
Marinette	Gertrude Schwittay, Marinette.
Marquette	Duncan H. Reid, Endeavor.
Milwaukee	Paul W. Huth, Milwaukee.
Monroe	M. M. Haney, Sparta.
Oconto	Ellen B. McDonald, Oconto.
Oneida	F. A. Lowell, Rhinelander.
Outagamie	A. G. Meating, Appleton.
Ozaukee	Richard F. Beger, Fredonia.
Pepin	Cynthia Carlisle, Durand.
Pierce	H. B. Aasterud, Ellsworth.
Polk	Martin Stenerson, Balsam Lake.
Portage	Frances C. Bannach, Stevens Point.
Price	May McNely, Phillips.
Racine	Frank La Budde, Union Grove.
Richland	Jacob B. Logue, Richland Center.
Rock	O. D. Antisdel, Janesville.
Rusk	Oliver E. Rice, Ladysmith.
St. Croix	H. A. Aune, Baldwin.
Sauk	Geo. W. Davies, North Freedom.
Sawyer	Effie M. Harrington, Hayward.
Shawano	L. D. Roberts, Shawano.
Sheboygan	H. C. Dornbush, Plymouth.
Taylor	J. E. Phillips, Medford.
Trempealeau	Dan P. Gibson, Whitehall.
Vernon	Henry L. Gardner, Viroqua.
Vilas	Arthur J. Austin, Eagle River.
Walworth	Helen Martin, Elkhorn.
Washburn	J. A. Lonsdorf, Shell Lake.
Washington	Geo. T. Carlin, West Bend.
Waukesha	G. B. Rhoads, Waukesha.
Waupaca	R. C. Bigford, Manawa.
Waushara	Edward Coates, Wautoma.

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V.—County Superintendents of Schools—Continued.

County.	Superintendent.	County.	Superintendent.
WISCONSIN—con.		WYOMING—con.	
Winnebago	Reginald E. Sanders, Oshkosh.	Johnson	Mrs. Bessie M. Bullis, Buffalo.
Wood	Geo. A. Varney, Vesper.	Laramie	Mrs. Mamie E. Hefferon, Cheyenne.
WYOMING.		Lincoln	Mrs. Maggie F. Nicholson, Kemmerer.
Albany	Mrs. Vina W. Mills, Laramie.	Natrona	May Hamilton, Casper.
Big Horn	Mrs. Ruth M. Donaldson, Basin.	Niobrara	Charles C. Browning, Lusk.
Campbell	Helen E. Widner, Gillette.	Park	Jennie G. McGuffey, Cody.
Carbon	Mamie E. Doherty, Rawlins.	Platte	Mary Maloney, Wheatland.
Converse	Maud Dawes, Douglas.	Sheridan	Mrs. Inez Cotton, Sheridan.
Crook	Elmer E. Green, Sundance.	Sweetwater	Mrs. Mary E. Moffitt, Rocksprings.
Fremont	Verna E. Wells, Lander.	Uinta	Florence E. Peterson, Evanston.
Goshen	C. O. Downing, Torrington.	Washakie	Mrs. Mary L. Hatfield, Ten Sleep.
Hot Springs	Mrs. Nellie L. Wales, Thermopolis.	Weston	Mabel G. Kingsley, Newcastle.

VI.—Superintendents of Public Schools in Cities and Towns.[1]

City.	Superintendent or supervising principal.	City.	Superintendent or supervising principal.
ALABAMA.		ARIZONA—contd.	
Alabama City	Jay D. Bradley.	Douglas	R. E. Sowers.
Anniston	D. R. Murphey.	Globe	Walter P. Bland.
Attalla	Alice Coleman.	Morenci	W. E. Lutz.
Bessemer	A. A. Persons.	Nogales	G. H. Madden.
Birmingham	J. H. Phillips.	Phoenix	John D. Loper.
Decatur	J. M. Collier.	Prescott	W. D. Baker.
Dothan	P. W. Hodges.	Tombstone	C. E. Tilford.
Eufaula	H. L. Upshaw.	Tucson	H. Steele.
Florence	W. R. Harrison.	Yuma	C. W. McGraw.
Gadsden	W. C. Griggs.	ARKANSAS.	
Girard	Roy K. Hood.	Argenta	D. L. Paisley.
Greenville	C. Baker Gamble.	Arkadelphia	H. A. Woodward.
Huntsville	R. C. Johnston.	Batesville	Sidney Pickens.
Jasper	J. W. Letson.	Blytheville	Harvey Haley.
Lanett	W. S. Leatherwood.	Camden	Thomas C. Abbott.
Mobile	Samuel S. Murphy.[2]	Conway	J. P. Womack.
Montgomery	C. L. Floyd.	Eldorado	J. O. Hodnett.
New Decatur	R. W. Cowart.	Eureka Springs	C. S. Barnett.
Opelika	F. Hall.	Fayetteville	F. S. Root.
Phoenix	Alice Coulter.	Fordyce	J. J. Harrison.
Selma	Arthur Fort Harman.	Fort Smith	George W. Reid.
Sheffield	W. P. Johnson.	Helena	E. B. Tucker.
Talladega	D. A. McNeill.	Hope	G. E. Fooshee.[3]
Troy	John R. McLure.	Hot Springs	O. L. Dunaway.
Tuscaloosa	James H. Foster.	Jonesboro	Charles Baldwin.
Tuscumbia	J. Floyd Collins.	Little Rock	Robert C. Hall.
Tuskegee	R. E. Thompson.	Malvern	G. W. Newton.
Union Springs	E. S. Pugh.	Mena	U. F. Jobe.
ALASKA.		Marianna	J. F. Mitchell.
Douglas	Floy Tracy.	Newport	Edgar Williams.
Juneau	L. D. Henderson.	Paragould	J. W. Ramsey.
Nome	O. W. Baird.	Pine Bluff	Junius Jordon.
Valdez	F. G. Davis.	Prescott	C. M. Hirst.
ARIZONA.		Rogers	M. O. Alcorn.
Benson	F. A. Robinson.	Russellville	W. F. Hall.
Bisbee	C. F. Philbrook.	Stuttgart	John G. Rossman.
Clifton	J. A. Davis.	Texarkana	Ury McKenzie.
		Van Buren	D. M. Riggin.

[1] This list comprises names of superintendents, supervising principals, or principals, as the case may be, for cities, towns, and incorporated villages reported as of 2,500 population or over in the census of 1910. A few cities have also been included of less than 2,500 population, but with a regularly designated superintendent of schools. It should be noted that lists published prior to 1915 were for places of 4,000 and over. The salary figures and other information formerly printed in the directory may be found by reference to the statistics of cities published in the annual report of the Commissioner of Education, Volume II, or in special bulletins, such as 1915, No. 31, and 1914, No. 16. Attention is drawn to the special note at the beginning of several of the State lists.

[2] County superintendent of Mobile County. Mobile is part of the county system.

[3] Principal.

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VI.—Superintendents of Public Schools in Cities and Towns—Continued.

City.	Superintendent or supervising principal.
CALIFORNIA.	
Alameda	C. J. Du Four.
Alhambra	Charles E. Barber.
Anaheim	J. L. Van Derveer.
Bakersfield	D. W. Nelson.
Berkeley	M. C. James.
Chico	Charles H. Camper.
Coalinga	Anna M. Steele.
Colton	G. H. Jantzen.
Corona	M. Victor Staley.
Emeryville	D. B. Lacy.
Eureka	George B. Albee.
Fresno	Charles C. Starr.
Glendale	Richardson D. White.
Grass Valley	James S. Hennessy.
Hanford	Osmez Abbott.
Hayward	E. N. Mabrey.
Lodi	R. J. Custer.
Long Beach	W. L. Stephens.
Los Angeles	Albert Shiels.
Marysville	Jennie Malaley.
Merced	C. S. Clark.
Mill Valley	J. E. Cuddeback.
Modesto	J. C. Templeton.
Monrovia	Thos. E. Thompson.
Monterey	J. H. Graves.[1]
Napa	J. L. Shearer.
Nevada City	Frank E. Tuck.
Oakland	Albert C. Barker.
Ontario	J. W. Groves.
Orange	Chas. E. Teach.
Oroville	H. P. Short.
Oxnard	R. B. Haydock.
Palo Alto	Walter H. Nichols.
Pasadena	Jeremiah M. Rhodes.
Petaluma	E. B. Dykes.
Pomona	G. Vernon Bennett.
Porterville	Charles E. Bigham.
Red Bluff	J. D. Sweeney.[2]
Redondo Beach	C. A. Langworthy.
Redding	Frank A. Forderhase.
Redlands	C. H. Covell.
Richmond	Walter T. Helms.
Riverside	A. N. Wheelock.
Roseville	Leonard M. Layton.
Sacramento	Charles C. Hughes.
Salinas	L. E. Kilkenny.
San Bernardino	Roy B. Stover.
San Diego	Duncan MacKinnon.
San Francisco	Alfred Roncovieri.
San Jose	Alexander Sheriffs.
San Leandro	Guy Smith.
San Luis Obispo	Arthur H. Mabley.
San Mateo	George W. Hall.
San Rafael	David R. Jones.
Santa Ana	J. A. Cranston.
Santa Barbara	A. C. Olney.
Santa Clara	Isabel Preston.
Santa Cruz	John W. Linscott.
Santa Monica	H. M. Rebok.
Santa Rosa	T. F. Brownscombe.
South Pasadena	George C. Bush.
Stockton	Ansel S. Williams.
Tulare	O. H. Grimsley.[2]
Vallejo	G. V. Whaley.
Venice	W. Y. Thornbury.
Ventura	A. L. Vincent.
Watsonville	Thomas S. MacQuiddy.
Whittier	G. Durfee.
Woodland	C. E. Dingle.
COLORADO.	
Alamosa	Carlton Aylard.
Boulder	Wm. V. Casey.
Canon City	C. E. Lauterbach.
COLORADO—contd.	
Colorado City	E. C. Best.
Colorado Springs	Roscoe C. Hill.
Creeley	G. E. Brown.
Cripple Creek	Wilson M. Shafer.
Denver	Carlos M. Cole.
Durango (District No. 9)	Emery E. Smiley.
Englewood	Chas. H. Hay.
Florence	C. C. Brown.
Fort Collins	Albert H. Dunn.
Fort Morgan	W. A. Franks.
Grand Junction	J. Henry Allen.
Greeley	G. E. Brown.
La Junta	Fred P. Austin.
Lamar	George R. Momyer.
Leadville	George M. Hammers.
Longmont	Charles C. Casey.
Loveland	R. W. Truscott.
Monte Vista	E. L. Parmenter.
Montrose	D. E. Wiedmann.
Pueblo:	
District No. 1	Frank D. Slutz.
District No. 20	J. F. Keating.
Rocky Ford	R. J. Walters.
Salida	Edgar Kesner.
Sterling	J. A. Sexson.
Trinidad	J. R. Morgan.
Victor	Wilson M. Shafer.
CONNECTICUT.	
Ansonia	Richard T. Tobin.
Bethel	Frank A. Berry.
Branford	Herman S. Lovejoy.
Bridgeport	Samuel J. Slawson.
Bristol	Karl A. Reiche.
Chaplin	J. W. Lanphear.
Colchester	J. A. Young.
Danbury	Guernsey J. Borst.
Danielson	H. F. Turner.
Darien	James F. Williams.
Derby	Edward Fitzgerald.
East Hartford	John W. Kratzer.
East Windsor	William F. English.
Essex	H. O. Clough.
Fairfield	William E. Smith.
Farmington	L. S. Mills.
Glastonbury	L. A. Martin.
Greenwich	Edwin C. Andrews.
Griswold	A. C. Burdick.
Groton (District No. 1)	Charles R. Heath.
Guilford	Ridgley C. Clark.
Hamden	Margaret L. Keefe.
Hartford	Thos. S. Weaver.
Huntington	Harry E. Fowler.
Killingly	H. T. Turner.
Litchfield	Earl A. Childs.
Manchester:	
Town schools	Alfred F. Howes.
District No. 9	F. A. Verplanck.
Meriden	David Gibbs.
Middletown (city district)	Wm. Alonzo Wheatley.
Middletown (districts)	Harriet M. Stone.
Milford	H. I. Mathewson.
Naugatuck	Frank W. Eaton.
New Britain	Stanley H. Holmes.
New Canaan	Henry W. Saxe.
New Haven	F. H. Beede.
New Haven (Westville district)	D. C. Allen.
New London	Charles B. Jennings.
New Milford	John Pettibone.
Norwalk	Ira T. Chapman.

[1] Principal of grammar school.

[2] Principal.

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VI.—Superintendents of Public Schools in Cities and Towns—Continued.

City.	Superintendent or supervising principal.
CONNECTICUT—con.	
Norwich	E. J. Graham.
Orange	Edgar O. Stiles.
Plainfield	John L. Chapman.
Plymouth	A. S. Gaylord.
Putnam	Harold W. Files.
Ridgefield	Charlotte J. Wakeman.
Seymour	Charles R. Sumpf.
Southington	Ernest C. Witham.
Stafford	Wm. Melcher.
Stamford	Frederick S. Camp.
Stonington	W. G. Snyder.
Stratford	William B. Kelsey.
Thompson	F. W. Barber.
Torrington	George J. Vogel.
Vernon	J. N. Muir.
Wallingford	Alfred B. Morrill.
Waterbury	B. W. Tinker.
Watertown	Leslie K. Chance.
West Hartford	William H. Hall.
Westport	Grover Chester Bowman.
Winchester	Frank E. Fisk.
Windsor	Daniel Howard.
Windsor Locks	Leander Jackson.
DELAWARE.	
Dover	C. W. Schantz.
Milford	Gilbert Nickel.
New Castle	Howard T. Ennis.
Wilmington	Clifford J. Scott.
DISTRICT OF COLUMBIA.	
Washington	Ernest L. Thurston.
FLORIDA.[1]	
Arcadia	G. M. Lynch.[2]
Apalachicola	Mrs. F. N. Clayton.[2]
Bartow	L. E. Bennett.
Bradentown	W. E. Sawyer.
Daytona	H. C. Marks.
De Land	Mrs. Maud Barron.
Dunnellon	C. F. Morrison.
Fernandina	W. H. Russell.[2]
Fort Myers	R. M. Sealey.
Fort Pierce	Inga O. Helseth.
Gainesville	F. W. Bucholz.
Jacksonville	R. B. Rutherford.
Key West	G. E. McKay.
Lake City	A. B. Conner.[2]
Lakeland	C. M. Jones.[2]
Live Oak	
Miami	J. H. Workman.
New Smyrna	George Marks.
Ocala	W. H. Cassels.
Orlando	J. W. Simmons.
Palatka	M. P. Geiger.
Pensacola	Ross Rogers.
Quincy	E. W. McMullen.
Sanford	B. F. Ezell.
Seabreeze	H. E. Wakefield.
St. Augustine	W. E. Knibloe.
St. Petersburg	G. N. Sleight.
Tallahassee	B. B. Lane.
Tampa	Marshall Moore.[3]
West Palm Beach	I. I. Himes.[2]
GEORGIA.	
Albany	Roland E. Brooks.
Americus	J. E. Mathis.
GEORGIA—contd.	
Athens	G. G. Bond.
Atlanta	L. M. Landrum.
Augusta	Lawton B. Evans.
Bainbridge	J. F. Thomason.
Barnesville	Edward T. Holmes.
Brunswick	N. H. Ballard.
Carrollton	H. B. Adams.
Cartersville	H. L. Sewell.
Covington	H. B. Robertson.
Columbus	Roland B. Daniel.
Cordele	A. L. Brewer.
Cuthbert	J. H. Woods.
Dalton	C. D. Meadows.
Dawson	J. C. Dukes.
Dublin	P. J. King.
East Point	J. R. Campbell.
Elberton	Theo. Rumble.
Fitzgerald	J. E. Ricketson.
Fort Valley	R. J. Newton.
Gainesville	J. A. Mershon.
Griffin	J. A. Jones.
Hawkinsville	J. F. Lambert.
La Grange	C. L. Smith.
Macon	C. H. Bruce.
Marietta	William T. Dumas.
Milledgeville	O. R. Horton.
Monroe	R. C. Mizell.
Moultrie	L. H. Browning.
Newnan	E. A. Armistead.
Quitman	H. D. Knowles.
Rome	W. P. Jones.
Sandersville	C. B. Quillian.
Savannah	C. B. Gibson.
Statesboro	B. B. Earl.
Summerville	F. B. Parham.
Thomasville	B. B. Broughton.
Toccoa	J. L. Allman.
Valdosta	William Otis Roberts.
Washington	J. W. Mosely.
Waycross	Augustus G. Miller.
Waynesboro	E. L. Tappan.
IDAHO.	
Boise	C. E. Rose.
Caldwell	H. H. Clifford.
Coeur d'Alene	J. V. Buck.
Idaho Falls	Theodore B. Shank.
Lewiston	Frank W. Simmonds.
Moscow	Charles Henry.
Nampa	C. J. Brosnan.
Pocatello	Walter R. Siders.
Sandpoint	G. W. Henderson.
Twin Falls	Hal. G. Blue.
Wallace	C. D. Brock.
Weiser	D. C. Neifert.
ILLINOIS.	
Alton	R. A. Haight.
Anna	Chas. A. McGinnis.
Aurora	C. M. Bardwell.
Aurora, West Side	S. K. McDowell.
Averyville	Harry E. Iler.
Batavia	H. C. Storm.
Beardstown	H. G. Russel.
Belleville	O. F. Weber.
Belvidere	Lewis A. Reisner.
Benton	Ralph W. Jackson.
Berwyn	Eugene A. Wilson.
Bloomington	John Kay Stableton.
Blue Island	J. E. Lemon.
Bridgeport	J. A. Eghoff.

[1] The county superintendents of Florida have direct oversight of city schools. The names given are those of local principals, as furnished to the Bureau of Education by the county superintendent or local authorities.

[2] High school principal.

[3] County superintendent of Hillsboro County.

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VI.—Superintendents of Public Schools in Cities and Towns—Continued.

City.	Superintendent or supervising principal.
ILLINOIS—contd.	
Bushnell	T. W. Everitt.
Cairo	T. C. Clendenen.
Canton	G. W. Gayler.
Carbondale	T. W. Oliver.
Carlinville	Wm. Harris.
Carmi	H. H. Calvert.
Carterville	O. A. Towns.
Centralia	H. Bohn.
Champaign	W. W. Earnest.
Charleston	De Witt Elwood.
Chester	C. O. Todd.
Chicago	J. D. Shoop.
Chicago Heights	F. M. Richardson.
Cicero	W. W. Lewton.
Clinton	H. H. Edmunds.
Coal City	Barbara Vollmer.
Collinsville	C. H. Dorris.
Danville	Gilbert P. Randle.
Decatur	James O. Engleman.
De Kalb	F. R. Ritzman.
Delaware	Wm. McK. Vance.
Dixon:	
North Side	H. H. Hagen.
South Side	C. I. Bixler.
Downers Grove	George C. Butler.
Dundee	Osher Schlaifer.
Duquoin	R. B. Templeton.
East Moline	D. B. Hoffman.
East St. Louis	D. Walter Potts.
Edwardsville	C. F. Ford.
Effingham	O. C. Bailey.
Eldorado	James Lyon.
Elgin	Robert L White.
Evanston:	
District No. 75	A. N. Farmer (acting).
District No. 76	Fred W. Nichols.
Fairbury	E. W. Powers.
Farmer City	David M. Dewhirst.
Forest Park	Henry Buellesfield.
Freeport	Sigel Elza Raines.
Galena	Katherine H. Obye.
Galesburg	W. L. Steele.
Granite City	L. P. Frohardt.
Geneseo	J. G. Gourlay.
Greenville	A. W. Niedermeyer.
Harrisburg	T. O. Elliott.
Harvard	J. H. Light.
Harvey	F. L. Miller.
Havana	T. E. Savage.
Herrin	Ray O. Jordan.
Highland	Charles L. Dietz.
Highland Park	Jesse L. Smith.
Hillsboro	H. J. Beckemeyer.
Hoopeston	W. R. Lowery.
Jacksonville	H. A. Perrin.
Jerseyville	D. R. Henry.
Johnston City	F. D. Harwood.
Joliet	Richard O. Stoops.
Kankakee	Franklin N. Tracy.
Kewanee	W. R. Curtis.
La Grange	F. E. Sanford.
Lake Forest	J. E. Baggett.
La Salle	J. B. McManus.
Lawrenceville	E. E. Grounds.
Lincoln	W. J. Hawkes.
Litchfield	D. H. Wells.
Lockport	R. L. Spires.
Macomb	V. L. Mangun.
Madison	J. W. Jackson.
Marion	B. F. Parr.
Marseilles	E. A. Collins.
Marshall	J. L. P. Beeman.
Mattoon	J. F. Wiley.
Maywood (District No. 89)	Eugene La Rowe.
Melrose Park	Eugene La Rowe.
Mendota	Kemper M. Snapp.
Metropolis	F. A. Schrader.
Moline	L. A. Mahoney.
Monmouth	L. L. Caldwell.
Morris	Edwin D. Martin.
Mound City	C. L. McCabe.
Mount Carmel	A. S. Anderson.
Mount Olive	Louis F. Hillman.
Mount Vernon	William Miner.
Murphysboro	S. J. Shomaker.
Naperville	O. A. Waterman.
Normal	Chester F. Miller.
North Chicago	Frank S. Espey.[1]
Oak Park	William H. Hatch.
Oakland	C. W. Conrad.[1]
Olney	H. W. Hostettler.
Ottawa	C. J. Byrne.
Pana	J. L. Hart.
Paris	T. J. Beecher.
Paxton	O. J. Balnum.
Pekin	Robert C. Smith.
Peoria	A. W. Beasley.
Peru	A. H. Karn.
Petersburg	H. D. Eickelberg.
Pinckneyville	B. O. Hoskinson.
Pontiac	W. W. McCulloch.
Princeton	H. E. Waits.
Quincy	C. M. Gill.
Robinson	Harry Green.
Rochelle	Herman Wimmer.
Rock Falls	E. O. Phares.
Rockford	Robinson G. Jones.
Rock Island	E. C. Fisher.
St. Charles	Mary Faith McAuley.
Salem	H. J. Blue.
Sandwich	W. W. Woodbury.
Savanna	C. H. Le Vitt.
Shelbyville	A. F. Lyle.
Sparta	Clarence Selby.
Springfield	Hugh S. Magill, jr.
Spring Valley	Ernest L. Bost.
Staunton	W. E. Eccles.
Sterling:	
District No. 10	Charles H. Marcy.
District No. 11	A. L. Hill.
Streator	Henry B. Fisher.
Sullivan	O. B. Lowe.
Sycamore	O. E. Peterson.
Taylorville	E. S. Jones.
Urbana	A. P. Johnson.
Vandalia	T. F. Hickman.
Venice	C. B. McClelland.
Virden	Clyde Slone.
Waltonville	C. E. Lannom.
Waukegan	W. C. Knoelk.
West Hammond	Arthur G. Deaver.
Westville	Sherman Cass.
Wheaton	J. B. Russell.
Whitehall	J. B. Hendricks.
Wilmette	J. R. Harper.
Winnetka	E. N. Rhodes.
Woodstock	R. W. Bardwell.
Zion City	
INDIANA.	
Alexandria	B. G. Keicher.
Anderson	W. A. Denny.
Angola	Adolph Siebel.
Attica	William F. Mullinnix.
Auburn	O. H. Blossom.
Aurora	Joseph R. Houston.
Bedford	J. B. Fagan.
Bicknell	Wm. W. Carter.
Bloomington	W. A. Myers.

[1] Principal.

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VI.—Superintendents of Public Schools in Cities and Towns—

City.	Superintendent or supervising principal.
CONNECTICUT—con.	
Norwich	E. J. Graham.
Orange	Edgar O. Stiles.
Plainfield	John L. Chapman.
Plymouth	A. S. Gaylord.
Putnam	Harold W. Files.
Ridgefield	Charlotte J. Wakeman.
Seymour	Charles R. Sumpf.
Southington	Ernest C. Witham.
Stafford	Wm. Melcher.
Stamford	Frederick S. Camp.
Stonington	W. G. Snyder.
Stratford	William B. Kelsey.
Thompson	F. W. Barber.
Torrington	George J. Vogel.
Vernon	J. N. Muir.
Wallingford	Alfred B. Morrill.
Waterbury	B. W. Tinker.
Watertown	Leslie K. Chance.
West Hartford	William H. Hall.
Westport	Grover Chester Bowman.
Winchester	Frank E. Fisk.
Windsor	Daniel Howard.
Windsor Locks	Leander Jackson.
DELAWARE.	
Dover	C. W. Schantz.
Milford	Gilbert Nickel.
New Castle	Howard T. Ennis.
Wilmington	Clifford J. Scott.
DISTRICT OF COLUMBIA.	
Washington	Ernest L. Thurston.
FLORIDA.[1]	
Arcadia	G. M. Lynch.[2]
Apalachicola	Mrs. F. N. Clayton.[2]
Bartow	L. E. Bennett.
Bradentown	W. E. Sawyer.
Daytona	H. C. Marks.
De Land	Mrs. Maud Barron.
Dunnellon	C. F. Morrison.
Fernandina	W. H. Russell.[2]
Fort Myers	R. M. Sealey.
Fort Pierce	Inga O. Helseth.
Gainesville	F. W. Bucholz.
Jacksonville	R. B. Rutherford.
Key West	G. E. McKay.
Lake City	A. B. Conner.[2]
Lakeland	C. M. Jones.[2]
Live Oak	
Miami	J. H. Workman.
New Smyrna	George Marks.
Ocala	W. H. Cassels.
Orlando	J. W. Simmons.
Palatka	M. P. Geiger.
Pensacola	Ross Rogers.
Quincy	E. W. McMullen.
Sanford	B. F. Ezell.
Seabreeze	H. E. Wakefield.
St. Augustine	W. E. Knibloe.
St. Petersburg	G. N. Sleight.
Tallahassee	B. B. Lane.
Tampa	Marshall Moore.[3]
West Palm Beach	I. I. Himes.[2]
GEORGIA.	
Albany	Roland E. Brooks.
Americus	J. E. Mathis.

City.	Superintend… pr…
GEORGIA—contd.	
Athens	G. G. Bon…
Atlanta	L. M. La…
Augusta	Lawton …
Bainbridge	J. F. Tho…
Barnesville	Edward …
Brunswick	N. H. B…
Carrollton	H. B. A…
Cartersville	H. L. S…
Covington	H. B. …
Columbus	Roland…
Cordele	A. L. …
Cuthbert	J. H. …
Dalton	C. D. …
Dawson	J. C. …
Dublin	P. J. …
East Point	J. …
Elberton	The…
Fitzgerald	J. …
Fort Valley	R. …
Gainesville	J. …
Griffin	J. …
Hawkinsville	J. …
La Grange	C. …
Macon	C. …
Marietta	W…
Milledgeville	O…
Monroe	…
Moultrie	…
Newnan	…
Quitman	…
Rome	…
Sandersville	…
Savannah	…
Statesboro	…
Summerville	…
Thomasville	…
Toccoa	…
Valdosta	…
Washington	…
Wayeross	…
Waynesboro	…
IDAHO.	
Boise	…
Caldwell	…
Coeur d'Alene	…
Idaho Falls	…
Lewiston	…
Moscow	…
Nampa	…
Pocatello	…
Sandpoint	…
Twin Falls	…
Wallace	…
Weiser	…
ILLINOIS.	
Alton	R. A…
Anna	Chas. …
Aurora	C. M. …
Aurora, West Side	S. K. M…
Averyville	Harry E…
Batavia	H. C. Stor…
Bo…town	G. Russ…
…ille	…Weber…
	…A. Rei…
	…W. Jac…
	…e A. Wil…
	…Kay Stabl…
	…Lemon.
	…Eghoff.

[1] The county superintendents o… those of local principals, as fo… authorities.
[2] High school principa…
[3] County superintend…

…The names … superintendent…

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S AND TOWNS—Continued.

City.	Superintendent or supervising principal.
-contd.	
.....	W. D. Reynolds.
e.....	R. Hooper Gatton.
.....	M. M. Faughender.
.....	W. J. Caplinger.
·o.....	F. A. Cosgrove.
d.....	R. A. Edwards.
·rling.....	Walter O. Hopper.
.....	W. P. King.
ille.....	Lee Kirkpatrick.
·ro.....	James H. Risley.
.....	J. H. Bentley.
.....	T. A. Hendricks.
on.....	R. A. London.
ond.....	D. W. Bridges.
ville.....	W. N. Shackleford.
ville.....	H. H. Elliott.
set.....	J. P. W. Brouse.
·hester.....	O. H. Harris.
OUISIANA.[1]	
sville.....	E. A. Skillman.
Landria.....	S. M. Brame.
on Rouge.....	A. M. Hendon.
Jalusa.....	J. F. Peters.
vington.....	A. J. Park.
owley.....	J. W. Mobley.
onaldsonville.....	R. S. Vickers.
ranklin	
Hammond.....	A. J. Caldwell.
Houma.....	O. H. Breidenbach.
Jennings.....	J. L. Anderson.
Kentwood.....	Paul Weiss.
Lafayette.....	L. J. Alleman.
Lake Charles.....	J. N. Yeager.[2]
Minden.....	J. B. Snell.
Monroe.....	H. E. Hays.
Morgan.....	L. A. Law.
Natchitoches.....	
New Iberia.....	
New Orleans.....	J. M. Gwinn.
Opelousas.....	
Patterson.....	P. C. Rogers, jr.
Plaquemine.....	J. O. Ault.
Ruston.....	C. V. Reser.
Shreveport.....	A. Bogard.
Thibodaux.....	W. S. Laforgue.
Winnfield.....	J. L. Liggin.
MAINE.	
Auburn.....	H. H. Randall.
Augusta.....	Herman H. Stuart.
Bangor.....	D. Lyman Wornwood.
Bath.....	Clarence N. Flood.
Belfast.....	William B. Woodbury.
Biddeford.....	I. Z. Allen.
Brewer.....	Fred W. Burrill.
Bridgton.....	F. E. Russell.
Brunswick.....	John A. Cone.
Calais.....	Barton Watson.
Camden.....	Bertram E. Packard.
Lewiston.....	R. J. Libby.
Lisbon.....	Leland A. Ross.
Livermore	Elmer H. Webber.
Livermore	
.....	W. H. Sturtevant.
.....	Frank McGouldrick.
.....	William H. Patten.
.....	Will O. Hersey.
.....	Joseph F. Burch.
.....	E. L. Turner.
.....	Joseph F. Cyr.

chools. The names given are the parish superintendent or local

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VI.—Superintendents of Public Schools in Cities and Towns—Continued.

City.	Superintendent or supervising principal.
INDIANA—contd.	
Bluffton	P. A. Allen.
Boonville	Charles E. Clarke.
Brazil	Chas. P. Keller.
Clinton	Donald Du Shane.
Columbia City	C. E. Spaulding.
Columbus	T. F. Fitzgibbon.
Connersville	Edwin L. Rickert.
Crawfordsville	Linnaeus N. Hines.
Crown Point	W. S. Painter.
Decatur	M. F. Worthman.
East Chicago	Edwin N. Canine.
Elkhart	J. A. Wiggers.
Elwood	A. W. Konold.
Evansville	L. P. Benezet.
Fairmount	R. B. Duff.
Fort Wayne	Justin N. Study.
Frankfort	Oscar M. Pittenger.
Franklin	J. C. Webb.
Garrett	George Carroll.
Gary	William A. Wirt.
Gas City	Isaac Cripe.
Goshen	J. W. Wilkinson.
Greencastle	E. C. Dodson.
Greenfield	Frank Larrabee.
Greensburg	E. C. Jerman.
Hammond	C. M. McDaniel.
Hartford City	M. M. Dunbar.
Huntington	J. M. Scudder.
Indianapolis	J. G. Collicott.
Jasonville	Jesse M. Todd.
Jeffersonville	E. M. Crouch.
Kendallville	P. C. Emmons.
Kokomo	C. V. Haworth.
La Fayette	Robert F. Hight.
Laporte City	Paul Van Riper.
Lawrenceburg	Jesse W. Riddle.
Lebanon	Henry G. Brown.
Linton	J. H. Haseman.
Logansport	Albert H. Douglass.
Madison	Homer Long.
Marion	A. E. Highley.
Martinsville	A. L. Trester.
Michigan City	L. W. Keeler.
Mishawaka	D. W. Horton.
Mitchell	Robert M. Tirey.
Montpelier	L. E. Kelley.
Mount Vernon	E. J. Llewelyn.
Muncie	Benj. F. Moore.
New Albany	H. A. Buerk.
Newcastle	E. W. Lawrence.
Noblesville	A. C. Payne.
North Vernon	William F. Vogel.
Peru	H. L. Hall.
Portland	Grant E. Derbyshire.
Plymouth	O. E. McDowell.
Princeton	J. W. Stott.
Richmond	J. T. Giles.
Rochester	A. L. Whitmer.
Rockport	W. D. Shewman.
Rushville	Joseph H. Scholl.
Seymour	T. A. Mott.
Shelbyville	J. W. Holton.
South Bend	J. F. Nuner.
Sullivan	C. N. Vance.
Tell City	Christian Newman.
Terre Haute	C. J. Waits.
Tipton	Charles F. Patterson.
Union City	John P. King.
Valparaiso	C. W. Boucher.
Vincennes	E. O Maple.
Wabash	O. J. Neighbours.
Warsaw	H. S. Kaufman.
Washington	E. D. Merriman.
West Lafayette	F. A. Burtsfield.
West Terre Haute	T. V. Pruitt.
Whiting	J. H. Hoskinson.
Winchester	Oscar R. Baker.

City.	Superintendent or supervising principal.
IOWA.	
Albia	Harry D. Kies.
Algona	J. F. Overmyer.
Ames	Frank W. Hicks.
Anamosa	T. M. Clevenger.
Atlantic	M. C. Galpin.
Belle Plaine	G. S. Wooten.
Boone	E. C. Meredith.
Burlington	W. L. Hanson.
Carroll	E. T. Housh.
Cedar Falls	A. H. Speer.
Cedar Rapids	J. J. McConnell.
Centerville	H. M. Taylor.
Chariton	I. L. Guernsey.
Charles City	F. T. Vasey.
Cherokee	F. E. Tellier.
Clarinda	F. A. Henderson.
Clinton	O. P. Bostwick.
Colfax	S. A. Potts.
Council Bluffs	J. H. Beveridge.
Cresco	A. I. Tiss.
Creston	Adam Pickett.
Davenport	Frank L. Smart.
Decorah	Mrs. Eva M. Fleming.
Denison	C. E. Humphrey.
Des Moines	Z. C. Thornburg.
Dubuque	James H. Harris.
Eagle Grove	Henry P. Neilson.
Esterville	F. H. Sunderlin.
Fairfield	Arthur W. Crane.
Fort Dodge	L. H. Minkel.
Fort Madison	F. A. Welch.
Glenwood	J. R. Neveln.
Grinnell	Eugene Henely.
Hampton	Bruce W. Tallman.
Harlan	Mary Jane Wyland.
Hawkeye	C. M. Holmes.
Independence	Jas. A. Doyle.
Indianola	O. E. Smith.
Iowa City	L. F. Mead.
Iowa Falls	Claude F. Brown.
Keokuk	William Aldrich.
Knoxville	Ernest Iler.
Le Mars	S. T. Neveln.
Manchester	John Hilliard.
Maquoketa	R. M. Stookey
Marion	O. M. Carson.
Marshalltown	Aaron Palmer.
Mason City	F. M. Hammitt
Missouri Valley	A. W. Graham.
Mount Pleasant	C. W. Crufkshank.
Muscatine	Ira H. McIntire.
Mystic	H. Ostegaard.
Newton	Harry P. Smith.
Oelwein	S. W. Johnson.
Oskaloosa	O. P. Flower.
Ottumwa	H. E. Blackmar.
Pella	F. M. Frush.
Perry	F. L. Mahannah.
Red Oak	J. R. Inman.
Sheldon	E. S. Selle.
Shenandoah	Charles F. Garrett.
Sioux City	M. G. Clark.
Spencer	E. W. Goetsch.
Valley Junction	J. S. Hofer.
Vinton	S. F. Brown.
Washington	C. D. Loose.
Waterloo:	
East Side	C. W. Kline.
West Side	A. T. Hukill.
Waverly	W. I. Griffith.
Webster City	D. M. Kelley.
Winterset	David Williams.
KANSAS.	
Abilene	W. A. Stacey.
Anthony	P. N. Heck.
Arkansas City	John B. Heffelfinger.

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VI.—Superintendents of Public Schools in Cities and Towns—Continued.

City.	Superintendent or supervising principal.
KANSAS—contd.	
Atchison	Nathan T. Veatch.
Beloit	W. O. Steen.
Caney	P. B. Humphrey.
Chanute	John F. Hughes.
Cherryvale	N. A. Baker.
Clay Center	Emil Kratochvil.
Coffeyville	A. A. Hughart.
Columbus	J. M. Gilmore
Concordia	E. F. Ewing.
Council Grove	E. W. Wells.
Dodge	J. H. Clement.
Eldorado	J. W. Murphy.
Emporia	L. A. Lowther.
Fort Scott	H. D. Ramsey.
Fredonia	A. I. Decker.
Frontenac	L. S. Minckley.
Galena	R. E. Long.
Garden	E. J. Dumond.
Great Bend	A. L. Bell.
Herington	C. H. Sandy.
Hiawatha	F. R. Aldrich.
Holton	E. W. Leamer.
Horton	Fred Thompson.
Humboldt	Chas. M. Hilleary.
Hutchinson	Justus O. Hall.
Independence	C. S. Risdon.
Iola	B. E. Lewis.
Junction City	Chas. A. Wagner.
Kansas City	M. E. Pearson.
Kingman	W. F. Shaw.
Learned	R. V. Phinney.
Lawrence	R. A. Kent.
Leavenworth	M. E. Moore.
Manhattan	E. B. Gift.
McPherson	R. W. Potwin.
Neodesha	Harry P. Study.
Newton	B. F. Martin.
Olathe	E. N. Hill.
Osawatomie	S. D. Hendrix.
Ottawa	A. F. Senter.
Paloa	O. C. Graber.
Parsons	John F. Barnhill.
Pittsburg	John F. Bender.
Pratt	J. F. Reynolds.
Rosedale	A. P. Vaughn.
Salina	W. S. Heusner.
Topeka	H. B. Wilson.
Wellington	Lilian D. O'Brien.
Wichita	L. W. Mayberry.
Winfield	J. W. Gowans.
KENTUCKY.	
Ashland	J. W. Bradner.
Bellevue	Joseph W. Ireland.
Bowling Green	T. C. Cherry.
Catlettsburg	J. O. Faulkner.
Central City	T. S. Williams.
Covington	H. O. Sluss.
Cynthiana	R. I. Cord.
Danville	J. A. Canargey.
Dayton	L. N. Taylor.
Earlington	C. E. Dudley.
Frankfort	H. C. McKee.
Franklin	W. A. Price.
Fulton	J. C. Cheek.
Georgetown	J. C. Waller.
Henderson	J. W. Welch.
Hickman	J. M. Calvin.
Hopkinsville	J. W. Marion.
Lebanon	J. R. Sterrett.
Lexington	M. A. Cassidy.
Louisville	O. L. Reid.
Ludlow	W. D. Reynolds.
Madisonville	R. Hooper Gatton.
Mayfield	M. M. Faughender.
Maysville	W. J. Caplinger.
Middlesboro	F. A. Cosgrove.
Morganfield	R. A. Edwards.
Mount Sterling	Walter O. Hopper.
Newport	W. P. King.
Nicholasville	Lee Kirkpatrick.
Owensboro	James H. Risley.
Paducah	J. H. Bentley.
Paris	T. A. Hendricks.
Princeton	R. A. London.
Richmond	D. W. Bridges.
Russellville	W. N. Shackleford.
Shelbyville	H. H. Elliott.
Somerset	J. P. W. Brouse.
Winchester	O. H. Harris.
LOUISIANA.[1]	
Abbeville	E. A. Skillman.
Alexandria	S. M. Brame.
Baton Rouge	A. M. Hendon.
Bogalusa	J. F. Peters.
Covington	A. J. Park.
Crowley	J. W. Mobley.
Donaldsonville	R. S. Vickers.
Franklin	
Hammond	A. J. Caldwell.
Houma	O. H. Breidenbach.
Jennings	J. L. Anderson.
Kentwood	Paul Weiss.
Lafayette	L. J. Alleman.
Lake Charles	J. N. Yeager.[2]
Minden	J. B. Snell.
Monroe	H. E. Hays.
Morgan	L. A. Law.
Natchitoches	
New Iberia	
New Orleans	J. M. Gwinn.
Opelousas	
Patterson	P. C. Rogers, jr.
Plaquemine	J. O. Ault.
Ruston	C. V. Reser.
Shreveport	A. Bogard.
Thibodaux	W. S. Laforgue.
Winnfield	J. L. Liggin.
MAINE.	
Auburn	H. H. Randall.
Augusta	Herman H. Stuart.
Bangor	D. Lyman Wornwood.
Bath	Clarence N. Flood.
Belfast	William B. Woodbury.
Biddeford	I. Z. Allen.
Brewer	Fred W. Burrill.
Bridgton	F. E. Russell.
Brunswick	John A. Cone.
Calais	Barton Watson.
Camden	Bertram E. Packard.
Caribou	R. J. Libby.
Dexter	Leland A. Ross.
East Livermore (P. O. Livermore Falls).	Elmer H. Webber.
Eastport	W. H. Sturtevant.
Eden	Frank McGouldrick.
Ellsworth	William H. Patten.
Fairfield	Will O. Hersey.
Farmington	Joseph F. Burch.
Fort Fairfield	E. L. Turner.
Fort Kent	Joseph F. Cyr.

[1] The parish (county) superintendent has jurisdiction over all city schools. The names given are the names of local principals as furnished to the Bureau of Education by the parish superintendent or local authorities. For names of parish superintendents see p. 24.

[2] System separate from the parish.

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VI.—Superintendents of Public Schools in Cities and Towns—Continued.

City.	Superintendent or supervising principal.
MAINE—continued.	
Gardiner	Herbert J. Chase.
Hallowell	Charles H. Abbott.
Houlton	Linville W. Robbins.
Kittery	I. James Merry.
Lewiston	Chas. Bickford.
Lisbon (P. O. Lisbon Falls).	A. B. Lord.
Lubec	W. H. Sturtevant.
Madison	Leon W. Gerrish.
Millinocket	W. M. Marr.
Milo	Foster L. Higgins.
Norway	True C. Morrill.
North Jay (P. O. Livermore Falls).	E. F. Callahan.
Old Town	William D. Fuller.
Orono	Do.
Paris	Merlin C. Joy.
Pittsfield	O. H. Drake.
Portland	De Forest H. Perkins.
Presque Isle	W. O. Chase.
Rockland	Roscoe L. West.
Rumford	L. E. Williams.
Saco	T. T. Young.
Sanford	C. A. Record.
Skowhegan	L. W. Gerrish.
South Berwick	Bliss Allen.
South Portland	Simon M. Hamlin.
Waldoboro	Victor V. Thompson.
Waterville	Charles N. Perkins.
Westbrook	Prescott Keyes.
York	Eugene S. Foster.
MARYLAND.[1]	
Annapolis	Josephine Rurdan.
Baltimore	C. J. Koch.
Bel Air	C. M. Wright.
Brunswick	O. M. Fogle.
Cambridge	E. C. Seitz.
Chestertown	Mark Creasy
Crisfield	
Cumberland	W. M. Tinker.
Easton	C. A. McBride.
Elkton	E. B. Fockler.
Frederick	G. L. Palmer.
Frostburg	O. R. Rice.
Hagerstown	Geo. W. McBride.
Havre de Grace	J. H. Owens.
Pocomoke City	E. C. Fontaine.
Salisbury	Frank G. Black.
Towson	A. C. Crommer.
Westernport	O. H. Bruce.
Westminster	C. H. Kolb.
MASSACHUSETTS.	
Abington	John E. De Meyer.
Adams	Francis A. Bagnall.
Agawam	Walter E. Gusher.
Amesbury	Burr F. Jones.
Amherst	Carroll R. Reed.
Andover	Henry C. Sanborn.
Arlington	George C. Minard.
Athol	W. Scott Ward.
Attleboro	Lewis A. Fales.
Ayer	Frank C. Johnson.
Barnstable	G. H. Galger.
Barre	A. S. Cole.
Belmont	George P. Armstrong.
Beverly	S. Howard Chace.
Billerica	Eugene C. Vining.
Blackstone	Harry Gardner.
Boston	Franklin B. Dyer.
Braintree	R. L. Wiggins.
Bridgewater	J. E. De Meyer.
Brockton	John F. Scully.
Brookline	Geo. I. Aldrich.
Cambridge	Michael E. Fitzgerald.

City.	Superintendent or supervising principal.
MASSACHUSETTS—continued.	
Canton	John C. Davis.
Chelmsford	Alberto W. Small.
Chelsea	Frank E. Parlin.
Chicopee	John C. Gray.
Clinton	Thomas F. Gibbons.
Concord	Wells A. Hall.
Dalton	Herbert L. Allen.
Danvers	F. B. Knight.
Dartmouth	Leon F. Prior.
Dedham	R. W. Hine.
Dudley	Ernest W. Robinson.
East Bridgewater	Edgar H. Grout.
Easthampton	W. D. Miller.
Easton	Harry J. Phipps.
Everett	Fairfield Whitney.
Fair Haven	Chas. F. Prior.
Fall River	Hector L. Belisle.
Falmouth	Carl Holman.
Fitchburg	James Chalmers.
Foxborough	Ira A. Jenkins.
Framingham	Ernest W. Fellows.
Franklin	Leslie O. Cummings.
Gardner	Fordyce T. Reynolds.
Gloucester	John D. Brooks.
Grafton	C. D. Stiles.
Great Barrington	R. H. Bellows.
Greenfield	Winthrop P. Abbott.
Hardwick	Albert S. Cole.
Haverhill	Clarence H. Dempsey.
Hingham	Orvis K. Collins.
Holbrook	S. F. Blodgett.
Holliston	Carroll H. Drown.
Holyoke	Francis McSherry.
Hudson	Cassius S. Lyman.
Hull	C. V. Nickerson.
Ipswich	Joseph I. Horton.
Lawrence	Bernard M. Sheridan.
Lee	Jerome P. Fogwell.
Leicester	George B. Clark.
Lenox	Charles A. Tucker.
Leominster	Wm. H. Perry.
Lexington	Arthur H. Carver.
Lowell	Hugh J. Molloy.
Ludlow	Walter E. Gushee.
Lynn	Charles S. Jackson.
Malden	Farnsworth G. Marshall.
Manchester	John C. Mackin.
Mansfield	Edward P. Fitts.
Marblehead	Burr J. Merriam.
Marlboro	Ernest P. Carr.
Medfield	A. S. Ames, substitute.
Medford	Fred H. Nickerson.
Medway	Carroll H. Drown.
Melrose	John C. Anthony.
Methuen	F. L. Haynes.
Middleboro	Charles H. Bates.
Milford	Almorin O. Caswell.
Millbury	C. C. Ferguson.
Milton	Frank M. Marsh.
Monson	Frederic A. Wheeler.
Montague	F. S. Brick.
Natick	Edgar L. Willard.
Needham	N. G. Howard.
New Bedford	Allen P. Keith.
Newburyport	W. C. Moore.
Newton	U. G. Wheeler.
North Adams	Isaac F. Hall.
North Andover	Dana P. Dame.
North Attleboro	Robert J. Fuller.
North Brookfield	Fred C. Tenney.
Northampton	Fayette K. Congdon.
Northbridge	Samuel A. Melcher.
Norton	Ira A. Jenkins.
Norwood	Austin H. Fritts.
Orange	Wesley E. Nims.
Palmer	Clifton H. Hobson.
Peabody	Albert Robinson.

[1] County superintendents in Maryland have jurisdiction over city schools. The names given (except for Baltimore) are those of local principals, as furnished by the county superintendent or local authorities.

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VI.—Superintendents of Public Schools in Cities and Towns—Continued.

City.	Superintendent or supervising principal.
MASSACHUSETTS—continued.	
Pepperell	Austin R. Paull.
Pittsfield	Clair G. Persons.
Plymouth	Charles A. Harris.
Provincetown	Chas. M. Pennell.
Quincy	Albert L. Barbour.
Randolph	Samuel F. Blodgett.
Reading	Adelbert L. Safford.
Revere	George M. Bemis
Rockland	T. M. Haines.
Rockport	William F. Eldredge.
Salem	William W. Andrew.
Saugus	William F. Sims.
Somerset	Charles W. Walter.
Somerville	Charles S. Clark.
South Hadley	Frederic E. Whittemore.
Southbridge	F. E. Corbin.
Spencer	Elwin L. Bartlett.
Springfield	James H. Van Sickle.
Stoneham	Arthur B. Webber.
Stoughton	Robert K. Bennett.
Sutton	O. C. Evans.
Swampscott	Willard W. Whitman.
Taunton	Henry W. Harrub.
Templeton	A. M. Jones.
Uxbridge	C. L. Judkins.
Wakefield	Willard B. Atwell.
Walpole	E. S. Cobb.
Waltham	William D. Parkinson.
Ware	George W. Cox.
Wareham	Herman N. Knox.
Warren	John Bacon.
Watertown	Wilfred H. Price.
Webster	Ernest W. Robinson.
Wellesley	S. Monroe Graves.
Westboro	T. S. Grindle.
Westfield	C. Edward Fisher.
Westford	Frank H. Hill.
West Springfield	John R. Fausey.
Weymouth	Parker T. Pearson.
Whitman	Elwood T. Wyman.
Williamstown	W. R. Howard.
Winchendon	Albert J. Chidester.
Winchester	Schuyler F. Herron.
Winthrop	Frank A. Douglas.
Woburn	George I. Clapp.
Worcester	Homer P. Lewis.
MICHIGAN.	
Adrian	Carl H. Griffey.
Albion	L. W. Fast.
Allegan	A. H. Robertson.
Alma	A. F. Schultz.
Alpena	R. D. Ford.
Ann Arbor	H. M. Slauson.
Battle Creek	William G. Coburn.
Bay City	Frank A. Gause.
Belding	J. A. Langston.
Benton Harbor	Frank A. Jensen.
Bessemer	C. R. Cobb.
Big Rapids	Don. Harrington.
Boyne City	H. W. McIntosh.
Cadillac	G. A. McGee.
Calumet	Edward J. Hall.
Charlotte	Charles H. Carrick.
Cheboygan	W. L. Barr.
Coldwater	T. E. Johnson.
Crystal Falls	Willis D. Hill.
Detroit	Charles E. Chadsey.
Dowagiac	A. F. Frazee.
East Jordan	L. P. Holliday.
Escanaba	F. E. King.
Flint	A. N. Cody.
Gladstone	E. J. Willman.
Grand Haven	Arthur Dondineau.
Grand Ledge	Jonas Sandon.
Grand Rapids	William A. Greeson.
Greenville	Arthur R. Shigley.
MICHIGAN—cont'd.	
Hamtramck	E. G. Van Deventer.
Hancock	H. D. Lee.
Hastings	E. J. Lederle.
Highland Park	T. J. Knapp.
Hillsdale	S. J. Gier.
Holland	E. E. Fell.
Houghton	John A. Doelle.
Ionia	L. L. Forsythe.
Iron Mountain	Leslie A. Butler.
Ironwood	E. T. Duffield.
Ishpeming	C. L. Phelps.
Jackson	E. O. Marsh.
Kalamazoo	Ellis H. Drake.
Lansing	J. W. Sexton.
Lapeer	E. E. Irwin.
Ludington	R. H. McIntosh.
Manistique	T. W. Clemo.
Marine City	R. Hazelton
Marquette	A. R. Watson.
Marshall	W. E. Olds.
Menominee	John L. Silvernale.
Midland	James B. Mott.
Monroe	E. E. Gallup.
Mount Clemens	Arthur S. Hudson.
Mount Pleasant	Geo. E. Ganiard.
Munising	E. L. Abell.
Muskegon	Shattuck O. Hartwell.
Negaunee	Orr Schurtz.
Niles	M. B. Travis.
Norway	C. J. Borchardt.
Onaway	Byron L. Odle.
Otsego	C. R. Johnson.
Owosso	M. W. Longman.
Petoskey	J. W. Kelder.
Pontiac	G. L. Jenner.
Port Huron	W. F. Lewis.
River Rouge	Alex McDonald.
Saginaw:	
East Side	Eugene C. Warriner.
West Side	Philipp Huber.
St. Clair	P. M. Keen.
St. Johns	Frank P. Buck.
St. Joseph	E. P. Clarke.
Sault Ste. Marie	G. G. Malcolm.
South Haven	T. E. Hook.
Sturgis	Carl M. Ferner.
Three Rivers	Floyd W. Crawford.
Traverse City	Leon Lewis Tyler.
Wyandotte	H. C. Daley.
Ypsilanti	W. B. Arbaugh.
MINNESOTA.	
Albert Lea	C. C. Baker.
Alexandria	F. M. Yockey.
Anoka	Frank H. Koos.
Austin	H. E. Wheeler.
Bemidji	W. P. Dyer.
Brainerd	W. C. Cobb.
Chisholm	J. P. Vaughan.
Cloquet	Peter Olesen.
Crookston	G. H. Sanberg.
Detroit	John B. Hagen.
Duluth	K. J. Hoke.
East Grand Forks	F. E. Lurton.
Ely	H. E. White.
Eveleth	B. O. Greening.
Fairmont	H. E. Wolfe.
Faribault	John Munroe.
Fergus Falls	Joseph G. Norby.
Hastings	L. L. Sloniger.
Hibbing	Claude C. Alexander.
Hopkins	R. J. Mayo.
Lake City	C. W. Brown.
Little Falls	F. W. Dobbyn.
Luverne	H. C. Bell.
Mankato	Frederick J. Sperry.
Melrose	E. J. Sweeney.
Minneapolis	Frank E. Spaulding.

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VI.—Superintendents of Public Schools in Cities and Towns—Continued.

City.	Superintendent or supervising principal.
MINNESOTA—contd.	
Montevideo	J. J. Bohlander.
Moorhead	H. R. Edwards.
New Ulm	H. C. Hess.
Northfield	M. P. Fobes.
Owatonna	W. B. Thornburgh.
Red Wing	O. W. Herr.
Rochester	H. A. Johnson.
St. Cloud	C. H. Maxson.
St. Paul	E. C. Hartwell.
St. Peter	B. M. Cosgrove.
South St. Paul	D. E. Hickey.
Staples	W. G. Bolcom.
Stillwater	J. C. Davies.
Thief River Falls	J. H. Hay.
Two Harbors	C. E. Campton.
Virginia	P. P. Colgrove.
Wabasha	L. U. Towle.
Waseca	M. L. Jacobson.
West St. Paul	J. W. Klinker.
Willmar	G. A. Foster.
Winona	J. V. Voorhees.
MISSISSIPPI.	
Aberdeen	J. O. Donaldson.
Bay St. Louis	J. M. Consley.
Biloxi	Ned Kocher.
Brookhaven	B. T. Schumpert.
Canton	H. M. Ivy.
Clarksdale	H. B. Heidleburg.
Collins	D. D. Cameron.
Columbus	W. V. Frierson, jr.
Corinth	F. C. Jenkins.
Grenada	A. Boyd Campbell.
Greenwood	C. E. Saunders.
Greenville	E. E. Bass.
Gulfport	I. T. Gilmer.
Hattiesburg	F. B. Woodley.
Jackson	E. L. Bailey.
Laurel	R. H. Watkins.
McComb	W. C. Williams.
Moss Point	R. D. Peets.
Meridian	D. C. Hull.
Natchez	J. H. Owings.
Okolona	W. M. Cox.
Pascagoula	S. P. Walker.
Starkville	R. C. Morris.
Tupelo	J. C. Windham.
Vicksburg	J. P. Carr.
Water Valley	C. S. Bigham.
West Point	Charles F. Capps.
Winona	O. A. Shaw.
Yazoo City	W. W. Lockard.
MISSOURI.	
Aurora	C. W. Anderson.
Boonville	C. E. Chrane.
Brookfield	Andrew Jackson.
Butler	John O. Henderson.
Cameron	W. C. Urban.
Cape Girardeau	J. N. Crocker.
Carterville	W. L. Coonrod.
Carthage	S. H. Wood.
Caruthersville	J. E. Howard.
Charleston	Geo. W. Kirk.
Chillicothe	A. M. Coburn.
Clinton	Arthur Lee.
Columbia	J. E. McPherson.
De Soto	W. L. Smith.
Eldorado Springs	W. S. Dade.
Excelsior Springs	G. W. Delmer.
Farmington	W. L. Johns.
Fayette	Jas. S. Tippett.
Flat River	J. U. White.
Fredericktown	J. B. Needham.
Fulton	J. T. Bush.
Hannibal	L. McCartney.
Higginsville	D. W. Branam.

City.	Superintendent or supervising principal.
MISSOURI—contd.	
Independence	W. L. C. Palmer.
Jefferson City	Samuel A. Baker.
Joplin	Joseph Sparks.
Kansas City	Ira I. Cammack.
Kennett	W. Salem Brown.
Kirksville	Chas. Banks.
Kirkwood	Nelson Kerr.
Lexington	B. M. Little.
Liberty	Geo. H. Beasley.
Louisiana	R. R. Rowley.
Macon	S. E. Seaton.
Maplewood	W. H. Schlueter.
Marceline	F. E. Bridwell.
Marshall	W. M. Westbrook.
Maryville	J. M. McDonald.
Mexico	H. A. Pryor.
Moberly	E. M. Sipple.
Monett	M. J. Hale.
Neosho	E. H. Newcomb.
Nevada	F. H. Barbee.
Poplar Bluff	W. D. Grove.
Rich Hill	O. C. Lynch.
Richmond	W. S. Drace.
St. Charles	Joseph Herring.
St. Joseph	Vernon G. Mays.
St. Louis	Ben Blewett.
Sedalia	John P. Gass.
Sikeston	E. D. Lee.
Springfield	W. W. Thomas.
Trenton	A. C. Gwinn.
Warrensburg	Edward Beatty.
Washington	F. H. Hoff.
Webb City	C. A. Greene.
Webster Groves	William Robertson.
Wellston	Ernest F. Bush.
West Plains	J. W. Pierce.
MONTANA.	
Anaconda	William K. Dwyer.
Billings	W. H. Nye.
Bozeman	R. J. Cunningham.
Butte	William E. Maddock.
Deer Lodge	Owen D. Speer.
Great Falls	S. D. Largent.
Havre	N. C. Abbott.
Helena	John Dietrich.
Kalispell	W. D. Swetland.
Lewistown	A. A. Franzke.
Livingston	B. A. Winans.
Miles City	J. A. Burger.
Missoula	J. Ulysses Williams.
Red Lodge	A. C. Carlson.
NEVADA.	
Carson City	W. J. Hunting.
Elko	P. G. McWhinney.
Ely	S. D. Eswine.
Goldfield	W. H. Weslar.
McGill	R. R. Bell.
Reno	B. D. Billinghurst.
Sparks	C. M. Meeker.
Tonopah	George L. Dilworth.
NEBRASKA.	
Alliance	W. R. Pate.
Auburn	J. A. Doremus.
Aurora	A. E. Fisher.
Beatrice	E. J. Bodwell.
Benson	John Speedie.
Blair	W. H. Myers.
Chadron	E. E. Hays.
Columbus	R. M. Campbell.
Fairbury	Wm. H. Morton.
Falls City	B. H. Graves.
Fremont	A. H. Waterhouse.
Grand Island	Robert J. Barr.

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VI.—Superintendents of Public Schools in Cities and Towns—Continued.

City.	Superintendent or supervising principal.
NEBRASKA—con.	
Hastings	T. W. B. Everhart
Havelock	A. J. Stoddard.
Holdrege	Dell Gibson.
Kearney	A. L. Caviness.
Lincoln	Fred M. Hunter
McCook	W. T. Davis.
Nebraska City	E. M. Cline.
Norfolk	J. M. Showalter.
North Platte	Wilson Tout.
Omaha	E. U. Graff.
Plattsmouth	W. G. Brooks.
University Place	L. I. Frisbie.
Wymore	George E. Lee.
York	W. W. Stoner.
NEW HAMPSHIRE.	
Berlin	Harry L. Moore
Claremont	W. H. Slayton.
Concord	L. J. Rundlett.
Conway	Alonzo J. Knowlton.
Derry	Charles W. Cutts
Dover	Frank Damon.
Exeter	Maro S. Brooks.
Farmington	F. U. Landman.
Franklin	George A. Keith.
Haverhill	Norman J. Page.
Keene	A. E. Tuttle.
Laconia	Joseph H. Bladsdell.
Lebanon	Thomas A. Roberts.
Littleton	Guy E. Speare.
Manchester	Herbert F. Taylor.
Milford	A. L. Smith.
Nashua	James H. Fassett.
Newport	E. H. S. Ellingwood.
Pembroke	Henry S. Roberts.
Portsmouth	James N. Pringle.
Rochester	Charles A. Breck.
Somersworth	Louis D. Record.
Walpole	E. J. Best
NEW JERSEY.	
Asbury Park	A. E. Kraybill.
Atlantic City	Chas. B. Boyer.
Bayonne	Preston H. Smith.
Belleville	G. R. Gerard.
Bernardsville	W. J. Bickett.
Bloomfield	George Morris.
Boonton	M. P. Reagle.
Bordentown	H. V. Holloway.
Boundbrook	Gaius Hoffman.
Bridgeton	David C. Porter.
Burlington	Wilbur Watts.
Camden	James F. Bryan.
Cape May City	E. R. Brunyate.
Carlstadt	George Kintner.
Cliffside Park	W. Irving Bray.
Collingswood	Amos H. Flake.
Dover	W. V. Singer.
East Newark	William J. Gleason.
East Orange	Edwin C. Broome.
East Rutherford	F. J. Oglee.
Edgewater	William F. Conway.
Elizabeth	Richard E. Clement.
Englewood	Elmer C. Sherman.
Flemington	Fred Arthur Nimes.
Fort Lee	Arthur E. Chase.
Freehold	E. E. Gaige.
Garfield	W. H. Steegar.
Glen Ridge	Sidney G. Firman.
Gloucester	Wilmer F. Burns.
Guttenberg	I. G. Miller.
Hackensack	William F. Stark.
Hackettstown	William S. Lesh.
Haddonfield	C. E. Dechant.
Haledon	Absalom Grundy.
Hammonton	Newton C. Holdridge.
Harrison	J. F. Prendergast.
Hawthorne	F. H. Thoms.
NEW JERSEY—con.	
Hoboken	A. J. Demarest.
Irvington	Frank H. Morrell.
Jersey City	Henry Snyder.
Kearny	Herman Dressel.
Keyport	Archibald M. Dick.
Lambertville	Theron F. Tabor.
Little Ferry	Harry Pierson.
Lodi	Edgar F. Bunce.
Long Branch	Christopher Gregory.
Madison	J. T. Godfrey.
Millville	Warren N. Drum.
Montclair	Don C. Bliss.
Morristown	J. Burton Wiley.
Newark	Addison B. Poland.
New Brunswick	George H. Eckels.
Newton	Howard E. Shimer.
North Bergen	Milton F. Husted.
North Plainfield	David F. Aungst.
Nutley	John R. Beachler.
Ocean City	J. M. Stevens.
Orange	W. Burton Patrick.
Passaic	Fred S. Shepherd.
Paterson	John R. Wilson.
Perth Amboy	Samuel E. Shull.
Phillipsburg	Henry J. Neal.
Plainfield	Henry M. Maxson.
Pleasantville	William Whitney.
Princeton	Mabel T. Vanderbilt.
Prospect Park	S. H. Ingersoll.
Rahway	William F. Little.
Raritan	George A. West.
Red Bank	Paul R. Radcliffe.
Ridgewood	Ira W. Travell.
Roosevelt	B. V. Hermann.
Roselle	R. M. Fraunfelter.
Rutherford	Clarence A. Fetterly.
Salem	W. B. Davis.
Secaucus	M. J. Pechtel.
Somerville	W. A. Ackerman.
South Amboy	Oscar O. Barr.
South Orange	H. W. Foster.
South River	W. H. Conners.
Summit	Clinton S. Marsh.
Tenafly	Ralph S. Maugham.
Trenton	Ebenezer Mackey.
Town of Union	N. C. Billings.
Vineland	Howard L. Reber.
Wallington	John M. Meyers.
Washington	Samuel M. Tressler.
Weshawken	Frank A. Balch.
Westfield	J. J. Savitz.
West Hoboken	M. H. Kinsley.
West New York	Holly W. Maxson.
West Orange	Allton H. Sherman.
Wharton	Wm. P. Curtis.
Woodbury	Malcolm G. Thomas.
NEW MEXICO.	
Albuquerque	John Milne.
Clovis	E. W. Bowyer.
Deming	J. B. Taylor.
East Las Vegas	W. B. McFarland.
Las Cruces	R. W. Twining.
Las Vegas	Mrs. Lou Cobb.
Raton	Arthur R. Kent.
Roswell	J. W. Riley.
Silver City	Byron J. Read.
Tucumcari	W. D. Shadwick.
NEW YORK.	
Albany	C. Edward Jones.
Albion	W. G. Carmer.
Amityville	George A. Brown.
Amsterdam	H. T. Morrow.
Auburn	Henry D. Hervey.
Babylon	C. W. Armstrong.
Baldwinsville	A. Wesley Armitage.
Ballston Spa	William A. Andrews.

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VI.—Superintendents of Public Schools in Cities and Towns—Continued.

City.	Superintendent or supervising principal.
NEW YORK—con.	
Batavia	Elwin A. Ladd.
Bath	E. A. Lewis.
Beacon	G. F. Du Bois.
Binghamton	Daniel J. Kelly.[1]
Brockport	Elizabeth S. Barclay.
Buffalo	Henry P. Emerson.
Canandaigua	Luther N. Steele.
Canastota	J. B. Harris.
Canton	S. C. Sumner.
Carthage	Sherman L. Howe.
Catskill	Edwin C. Hocmer.
Cohoes	Edward Hayward.
Cold Springs	L. H. Rockwell.
Cortland	F. E. Smith.
Clyde	George R. Bodley.
Corning:	
District No. 9	H. H. Chapman.
District No. 13	A. M. Blodgett.
Cornwall	Herman C. Woodworth.
Dansville	J. Murray Foster.
Depew	J. Fred Whitford.
Dobbs Ferry	Benjamin M. Sheppard.
Dolgeville	A. E. Stukey.
Dunkirk	F. R. Darling.
East Aurora	Harry W. Meade.
East Syracuse	Delmar E. Hawkins.
Ellenville	W. Floyd Harris.
Elmira	Asher J. Jacobey.
Elmira Heights	F. C. Sherman.
Fairport	J. L. Hopkins.
Fort Edward	Franklin Barber.
Fort Plain	C. D. Woodruff.
Frankfort	B. C. Van Ingen.
Fredonia	William B. Blaisdell.
Freeport	Ward Clinton Moon.
Fulton	James R. Fairgrieve.
Geneva	A. J. Merrell.
Genoa	Gordon Springer.
Glens Falls	Elbert W. Griffith.
Gloversville	James A. Estee.
Goshen	Montgomery C. Smith.
Gouverneur	Charles W. Lewis.
Granville	R. E. Brown.
Green Island	James Heatly.
Greenport	Seward S. Travis.
Hastings-upon-Hudson	W. W. Bullock.
Haverstraw	L. O. Markham.
Hempstead	J. T. P. Calkins.
Herkimer	George M. Elmendorf.
Homer	J. M. Round.
Hoosick Falls	Clyde C. Harvey.
Hornell	F. R. Neild.
Hudson	Charles S. Williams.
Hudson Falls	G. A. Ingalls.
Ilion	H. M. Schwartz.
Ithaca	F. D. Boynton.
Jamestown	Rovillus R. Rogers.
Johnston City	F. M. Smith.
Johnstown	E. L. Ackley.
Kingston	Myron J. Michael.
Lackawanna	A. H. Mathewson.
Lancaster	P. J. Zeilman.
Le Roy	William M. Dunn.
Little Falls	John A. De Camp.
Lockport	Emmet Belknap.
Lowville	William F. H. Breeze.
Lyons	W. H. Kinney.
Malone	R. M. Northrop.
Mamaroneck	George J. M. Andrew.
Massena	D. H. Naylor.
Mechanicsville	George F. Hall.
Medina	P. R. Merriman.
Middletown	James F. Tuthill.
Mount Kisco	Ezra Benedict.
Mount Morris	Frederick C. Miller.
Mount Vernon	William H. Holmes.
Newark	William M. Fort.
Newburgh	James M. Crane.
New Rochelle	Albert Leonard.
New York	William H. Maxwell.
Niagara Falls	J. B. Laidlaw.
North Tarrytown	Charles A. Benedict.
North Tonawanda	Richard A. Searing.
Norwich	Stanford J. Gibson.
Nyack	H. J. Wightman.
Ogdensburg	Francis C. Byrn.
Olean	Delmer E. Batcheller.
Oneida	Daniel Keating.
Oneonta	George J. Dann.
Ossining	William H. Ryan.
Oswego	Charles W. Richards.
Owego	I. S. Carroll.
Patchogue	Wellington E. Gordon.
Peekskill:	
District No. 7	Fred J. Bohlmann.
District No. 8	A. D. Dunbar.
Penn Yan	W. E. De Melt.
Perry	W. H. McClelland.
Plattsburg	F. K. Watson.
Port Chester	E. S. Redman.
Port Jarvis	A. H. Naylor.
Potsdam	Harley A. Miner.
Poughkeepsie	S. R. Shear.
Rennsalaer	Arthur Z. Boothby.
Rochester	Herbert S. Weet.
Rockville Center	W. S. Covert.
Rome	G. R. Staley.
Sag Harbor	Vacant.
St. Johnsville	John R. Palmer.
Salamanca	A. W. Fortune.
Saranac Lake	Howard V. Littell.
Saratoga Springs	Charles L. Mosher.
Saugerties	E. A. Van Slyke.
Schenectady	O. W. Koult.
Scotia	James B. Welles.
Seneca Falls	F. J. Medden.
Sidney	Herbert Preston.
Silver Creek	F. A. Dubois.
Solvay	R. B. Kelly.
Southampton	John G. Peck.
Suffern	Aretus P. Burroughs.
Syracuse	Percy M. Hughes.
Tarrytown	L. V. Case.
Tonawanda	Frank K. Sutley.
Troy	Arvie Eldred.
Lansingburgh district.	N. R. White.
Tuckahoe	R. E. Fink.
Tupper Lake	M. A. Shaw.
Utica	W. B. Sprague.
Walden	F. L. Smith.
Walton	C. P. Wells.
Wappingers Falls	E. I. Arthur.
Warsaw	George W. Glasier.
Waterford	L. W. Bills.
Waterloo	D. B. Williams.
Watertown	Frank S. Tisdale.
Watervliet	Hugh H. Lansing.
Watkins	John A. Beers.
Waverly	P. C. Meserve.
Wellsville	Howard G. Burdge.
Westfield	Preston K. Pattison.
Whitehall	H. H. Lamberton.
White Plains	John W. Lumbard.
Yonkers	Charles E. Gorton.
NORTH CAROLINA.	
Asheville	Harry Howell.
Belhaven	V. W. McGhee.
Burlington	A. H. King.
Charlotte	H. P. Harding.
Concord	A. S. Webb.
Durham	E. D. Pusey.
Edenton	M. L. Wright.
Fayetteville	W. S. Snipes.

[1] Principal.

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VI.—Superintendents of Public Schools in Cities and Towns—Continued.

City.	Superintendent or supervising principal.
NORTH CAROLINA—continued.	
Elizabeth City	S. H. Spragins.
Gastonia	Joe S. Wray.
Goldsboro	C. V. Neuffer.
Graham	C. W. Rankin.
Greensboro	W. C. A. Hammel.
Greenville	Hoy Taylor.
Hendersonville	C. E. Blockstock.
Hickory	C E McIntosh.
High Point	W. M. Marr.
Lenoir	Horace Sisk.
Lexington	O. V. Woosley.
Monroe	R. W. Allen.
Mooresville	W. C. Ariail.
Morganton	A. C. Kerley.
Mount Airy	C. M. Staley.
Newbern	H. B. Smith.
Oxford	G. B. Phillips.
Raleigh	Frank M. Harper.
Reidsville	T. Wingate Andrews.
Rocky Mount	R. M. Wilson.
Salisbury	A. T. Allen.
Shelby	R. T. Howerton.
Statesville	I. C. Griffin.
Tarboro	R. H. Bachman.
Thomasville	J. N. Hauss.
Washington	C. M. Campbell, jr.
Wilmington	John Jay Blair.
Wilson	Charles L. Coon.
Winston-Salem	R. H. Latham.
NORTH DAKOTA.	
Bismarck	J. M. Martin.
Devils Lake	Nelson Sauvain.
Dickinson	P. S. Berg.
Fargo	Arthur Deamer.
Grafton	W. J. Hoover.
Grand Forks	J. Nelson Kelly.
Jamestown	N. C. Koontz.
Kenmare	Louis P. Linn.
Mandan	C. L. Love.
Minot	Bruce Francis.
Valley City	G. W. Hanna.
Wahpeton	Martha T. Fulton.
Williston	Leslie A. White.
OHIO.	
Akron	H. V. Hotchkiss.
Alliance	B. F. Stanton.
Ashland	John A. McDowell.
Ashtabula	H. C. Dieterich.
Athens	J. F. Morgan.
Barberton	U. L. Light.
Barnesville	August H. Denbrock.
Bellaire	C. S. McVay.
Bellefontaine	R. J. Kiefer.
Bellevue	C. C. Garman.
Beren	H. B. Alberty.
Bowling Green	W. P. Starkey.
Bridgeport	S. A. Gillett.
Bryan	J. W. Wyandt.
Bucyrus	W. W. Borden.
Byesville	J. S. Talbott.
Cambridge	W. E. Arter.
Canton	John K. Baxter.
Celina	J. W. Pogue.
Chicago Junction	W. C. Kramer.
Chillicothe	F. J. Prout.
Cincinnati	Randall J. Condon.
Circleville	W. T. Trump.
Cleveland	J. M. H. Frederick.
Cleveland Heights	James W. McLane.
Clyde	A. J. Love.
Columbus	J. H. Francis.
Conneaut	E. D. Williamson.
Coshocton	Charles E. Bryant.
Crestline	A. E. Moody.
Crooksville	E. D. Bates.
OHIO—continued.	
Cuyahoga Falls	W. H. Richardson.
Dayton	F. W. Miller.
Defiance	E. W. Howey.
Delaware	William McK. Vance.
Delphos	I. F. Matteson.
Dover	Franklin P. Geiger.
Dennison	W. H. Angell.
East Cleveland	W. H. Kirk.
East Liverpool	F. H. Warren.
East Palestine	Alfred D. Ladd.
East Youngstown	W. M. Coursin.
Eaton	John O'Leary.
Elmwood Place	W. S. Eversull.
Elyria	F. M. Shelton.
Findlay	John Franklin Smith.
Fostoria	R. W. Solomon.
Franklin	F. B. Harris.
Fremont	F. P. Timmons.
Galion	J. J. Phillips.
Gallipolis	O. B. Clifton.
Geneva	C. E. Webb.
Girard	H. L. Cash.
Glouster	M. O. Davis.
Greenfield	E. W. Patterson.
Greenville	F. C. Kirkendall.
Hamilton	Darrell Joyce.
Hillsboro	Pearce McMullen.
Ironton	C. E. McCorkle.
Jackson	James Edgar Kinnison.
Kent	Forrest B. Bryant.
Kenton	N. E. Hutchinson.
Lakewood	Charles P. Lynch.
Lancaster	J. R. Clements.
Lebanon	C. A. Bruner.
Leetonia	J. M. May.
Lima	J. E. Collins.
Lisbon	J. A. Pierce.
Lockland	C. F. Sharp.
Logan	L. I. Morse.
London	W. H. Rice.
Lorain	D. J. Boone.
Mansfield	H. H. Helter.
Marietta	B. O. Skinner.
Marion	Henry A. Hartman.
Martins Ferry	W. A. Walls.
Marysville	L. B. Demorest.
Massillon	Lewis Edwin York.
Medina	W. S. Edmund.
Miamisburg	Harris V. Bear.
Middletown	N. D. O. Wilson.
Middleport	A. W. McKay.
Mingo Junction	F. Linton.
Montpelier	G. W. Hoffman.
Mount Vernon	P. C. Zemer.
Napoleon	E. H. Brown.
Nelsonville	E. R. Rike.
Newark	Wilson Hawkins.
New Comerstown	E. E. Smock.
New Lexington	Carl G. Pemberton.
New Philadelphia	Charles F. Limbach.
Niles	W. C. Campbell.
North Baltimore	J. O. Grimes.
Norwalk	C. C. Patterson.
Norwood	William S. Cadman.
Oberlin	H. L. Rawdon.
Orrville	Walter W. Borden.
Painesville	C. C. Underwood.
Piqua	George C. Dietrich.
Pomeroy	C. T. Coates.
Port Clinton	C. M. Carrick.
Portsmouth	Frank Appel.
Ravenna	Edward O. Trescott.
St. Bernard	J. L. Trisler.
St. Marys	C. C. McBroom.
Salem	John S. Alan.
Sandusky	James T. Begg.
Shelby	William H. Maurer.
Sidney	H. R. McVay.
Silver Creek	F. A. Dubois.

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VI.—Superintendents of Public Schools in Cities and Towns—Continued.

City.	Superintendent or supervising principal.
OHIO—continued.	
Springfield	Carey Bogress.
Steubenville	R. L. Erwin.
Struthers	W. P. Moody.
Tiffin	Charles A. Krout.
Toledo	William B. Guitteau.
Toronto	T. J. Williams.
Troy	Charles W. Cookson.
Urichsville	L. E. Everett.
Urbana	I. N. Keyser.
Van Wert	D. B. Clark.
Wadsworth	A. W. Elliott.
Wapakoneta	F. E. Reynolds.
Warren	H. B. Turner.
Washington C. H.	William McClain.
Wauseon	M. L. Alstetter.
Wellston	S. H. Maharry.
Wellsville	A. D. Horton.
West Park	T. J. Williams.
Wilmington	E. P. West.
Woodsfield	R. C. Maston.
Wooster	G. C. Maurer.
Xenia	J. R. Patterson.
Youngstown	N. H. Chaney.
Zanesville	W. C. Bowers.
OKLAHOMA.	
Ada	T. W. Robinson.
Altus	W. H. Decker.
Alva	Guy M. Lisk.
Anadarko	W. H. Bishop.
Ardmore	Chas. Walter Richards.
Bartlesville	Francis W. Wenner.
Blackwell	A. J. Lovett.
Chickasha	Wm. F. Ramey.
Claremore	Mrs. Mary A. Davis.
Clinton	C. E. Grady.
Durant	O. E. Parris.
Elk City	Arthur L. Richards.
El Reno	C. M. Lieb.
Enid	E. D. Price.
Frederick	T. A. Gross.
Guthrie	Thos. Scott.
Hartshorne	T. J. Weatherall.
Hobart	T. E. Bartlett.
Hugo	H. G. Bennett.
Kingfisher	J. E. Arendell.
Krebs	T. A. Craighead.
Lawton	Hugh A. Carroll.
Mangum	R. M. Caldwell.
McAlester	W. G. Masterson.
Miami	M. R. Floyd.
Muskogee	Edwin S. Monroe.
Norman	N. H. Edwards.
Nowata	E. B. Gardner.
Oklahoma	J. A. Whiteford.
Okmulgee	N. O. Hopkins.
Pauls Valley	Jno. T. Butcher.
Pawhuska	Wm. M. Sinclair.
Perry	B. R. Robinson.
Ponca	J. N. Hamilton.
Purcell	F. M. Kimes.
Sapulpa	A. C. Cohagan.
Shawnee	Hugh G. Faust.
Stillwater	G. W. Dunlavy.
Sulphur	R. E. Downing.
Tahlequah	W. T. Scott.
Tulsa	E. E. Oberholtzer.
Vinita	C. N. Peak.
Wagoner	Mrs. Leona Logue.
Wainwright	J. R. Holmes, jr.
Walters	M. L. Cotton.
Waurika	C. S. Storms.
Weatherford	K. W. Harris.
Woodward	G. C. Wakefield.

City.	Superintendent or supervising principal.
OREGON.	
Albany	C. W. Boetticher.
Ashland	Geo. A. Briscoe.
Astoria	J. G. Imel.
Baker	A. C. Strange.
Corvallis	James M. Powers.
Eugene	W. R. Rutherford.
Grants Pass	Dan J. Hull.
Klamath Falls	R. H. Dunbar.
La Grande	Linden McCullough.
McMinnville	G. W. Hug.
Marshfield	F. A. Teidgen.
Medford	V. Meldo Hillis.
Oregon City	F. J. Tooze.
Pendleton	A. T. Park.
Portland	L. R. Alderman.
Roseburg	F. B. Hamlin.
Salem	J. W. Todd.
The Dalles	I. B. Warner.
PENNSYLVANIA.[1]	
Allentown	H. W. Dodd.
Altoona	H. H. Baish.
Ambler	J. M. Fisher.
Ambridge	B. S. Bayle.
Apollo	W. R. Steel.
Archbald	W. A. Kelley.
Ashland	J. C. Weirich.
Ashley	A. P. Cope.
Aspinwall	E. J. Robinson.
Athens	Wm. F. Yoder.
Austin	J. B. Southard.
Avalon	Oliver S. Jamison.
Avoca	Charles Webber.
Bangor	J. W. Gruver.
Barnesboro	G. W. Stephens.
Beaver	J. Brad Craig.
Beaver Falls	C. C. Green.
Bellefonte	Jonas E. Wagner.
Bellevue	T. E. Garber.
Berwick	J. Y. Shambach.
Bethlehem	Wm. G. Cleaver.
Birdsboro	A. M. Hinkel.
Blairsville	F. D. Zerner.
Blakeley	H. B. Anthony.
Bloomsburg	L. P. Sterner.
Brackenridge	Venetta J. Travis.
Braddock	F. C. Steltz.
Bradford	E. E. Schermerhorn.
Bridgeport	H. E. James.
Bristol	Louise D. Baggs.
Brookville	C. E. Wilson.
Butler	John A. Gibson.
Canonsburg	F. W. McVay.
Carbondale	P. M. Brennan.
Carlisle	J. C. Wagner.
Carnegie	Thomas J. George.
Carrick	W. H. Sprenkle.
Catasaqua	H. J. Reinhard.
Chambersburg	A. B. Hess.
Charleroi	Thomas L. Pollock.
Chester	J. Linwood Eisenberg.
Clarion	John W. Rutherford.
Clearfield	George E. Zerfoss.
Clifton Heights	J. E. Cummings.
Coaldale	Jno. E. Gildea.
Coatesville	Wm. T. Gordon.
Columbia	Wm. C. Sampson.
Connellsville	Stanley P. Ashe.
Conshohocken	A. M. Weaver.
Coplay	Wm. Shetlock.
Coraopolis	C. E. Hilborn.
Corry	C. L. Wilson.
Coudersport	D. R. Merrick.
Crafton	Calvin Bowman.
Curwensville	L. J. Gilliland.

[1] Only cities of over 5,000 population are reported to the State department as having superintendents. The list here given comprises the official State list of superintendents together with the names of supervising principals as communicated by the local authorities to the Bureau of Education.

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VI.—Superintendents of Public Schools in Cities and Towns—Continued.

City.	Superintendent or supervising principal.	City.	Superintendent or supervising principal.
PENNSYLVANIA—continued.		PENNSYLVANIA—continued.	
Danville	D. N. Dieffenbacher.	Lockhaven	Clement W. Hunt.
Darby	Wilmer A. Krieder.	Luzerne	Theron G. Osborne.
Derry	J. C. Bryson.	Mahanoy City	H. A. O'Day.
Dickson City	A. W. Marvin.	McAdoo	A. T. O'Donnell.
Donora	J. M. Layhue.	McDonald	S. T. McAnlis.
Dorranceton (Wilkes-Barre).	C. B. Hanyen, jr.	McKeesport	Joseph B. Richey.
		McKees Rocks	Thos. K. Johnston.
Downingtown	A. B. Moyer.	Mauch Chunk	E. P. Heckert.
Doylestown	Carmon Ross.	Meadville	Edward Sargent.
Dubois	I. M. Gast.	Mechanicsburg	Ralph Jacoby.
Dunmore	C. F. Hoban.	Media	W. C. Joslin.
Duquesne	C. H. Wolford.	Meyersdale	W. H. Kretchman.
Duryea	F. J. Regan.	Middletown	H. J. Wickey.
East Conemaugh	J. M. Uhler.	Millvale	C. C. Williamson.
East Mauch Chunk	P. H. McCabe.	Milton	Wallace W. Fetzer.
East Pittsburgh	H. L. Koons.	Minersville	Chas. E. Roudabush.
East Stroudsburg	C. A. Goss.	Monaca	W. T. McCullough.
Easton	Robert E. Laramy.	Monessen	H. E. Gress.
Edgewood	Ernest C. Noyes.	Monongahela	Renweck G. Dean.
Edwardsville	J. O. Herman.	Moosic	Irwin D. Ritter.
Elizabethtown	E. U. Aumiller.	Mount Carmel	Samuel H. Dean.
Elwood City	Charles F. Becker.	Mount Oliver	Minnie Winger.
Emaus	Howard C. Snyder.	Mount Pleasant	U. L. Gordy.
Emporium	R. W. Clawges.	Mount Union	W. P. Harley.
Ephrata	H. E. Gehman.	Munhall	C. R. Stone.
Erie	Ira B. Bush.	Nanticoke	Alton P. Diffendafer.
Etna	J. F. Mitchell.	Nazareth	Frederick A. Marcks.
Exeter (Pittston P. O.).	Elizabeth Dougher.	New Brighton	Floyd Atwell.
		New Castle	George A. Dickson.
Farrell	L. R. Eckles.	New Kensington	J. E. Heishberger.
Ford City	W. W. Irwin.	North Braddock[1]	
Forest City	F. H. Taylor.	North East	W. J. McQuiston.
Frackville	Wm. R. Trautman.	North Towanda	R. A. Searing.
Franklin	N. P. Kinsley.	Norristown	Allen S. Martin.
Freedom	F. A. Barkley.	Northampton	William D. Landis.
Freeland	J. H. Herring.	Northumberland	Myron Geddes.
Galeton	Roger B. Foote.	Oakmont	W. L. Gilmore.
Gallitzin	R. H. Biter.	Oil City	James J. Palmer.
Gettysburg	Willis A. Burgoon.	Old Forge	Francis R. Coyne.
Gilberton	C. A. Burke.	Olyphant	M. W. Cummings.
Girardville	E. W. Taylor.	Parkesburg	L. F. Bollman.
Glassport	John S. Hart.	Parnassus	V. Blaine Lefler.
Greensburg	J. H. Alleman.	Parsons	Ebenezer A. Evans.
Greenville	G. B. Gerberich.	Patton	William Bosserman.
Grove City	H. M. B. Lehn.	Pen Argyl	G. W. Gulden.
Hanover	Oden C. Gortner.	Perkasie	Lewis H. Wagenhorst.
Harrisburg	Frederick E. Downes.	Philadelphia	John P. Garber.
Hazleton	David A. Harman.	Phillipsburg	J. S. F. Ruthrauff.
Hollidaysburg	H. J. Barrett.	Phoenixville	Isaac Doughton.
Homestead	Landis Tanger.	Pitcairn	C. G. Pierce.
Honesdale	R. T. Davies.	Pittsburgh	William M. Davidson.
Huntingdon	W. M. Rife.	Pittston	Francis S. McGugan.
Indiana	F. Ernest Work.	Plymouth	S. L. Smith.
Irwin	Effie J. Fisher.	Portage	C. F. Helt.
Jeannette	E. Wilber Long.	Port Carbon	Mark E. Stine.
Jenkintown	LeRoy A. King.	Pottstown	W. W. Rupert.
Jermyn	Wm. M. Behler.	Pottsville	E. R. Barclay.
Jersey Shore	J. G. Dundore.	Punxsutawney	Frank S. Jackson.
Johnstown	J. N. Adee.	Quakertown	I. O. Schell.
Johnsonburg	G. W. Mitchell.	Rankin	R. S. Penfield.
Juniata	M. B. Wineland.	Reading	Charles S. Foos.
Kane	H. O. Dietrich.	Renovo	George A. Mincemoyer.
Kingston	J. R. Merkel.	Reynoldsville	W. M. Jones.
Kittanning	Frank W. Goodwin.	Ridgway	W. M. Pierce.
Knoxville	A. R. Gilbert.	Rochester	William S. Taft.
Lancaster	H. B. Work.	Royersford	J. A. Uhland.
Lansdale	Henry L. Seaman.	St. Marys	J. J. Lynch.
Lansdowne	Walter L. Philips.	Schuylkill	Thomas G. Jones.
Lansford	Elmer E. Kuntz.	Sayre	L. E. De Laney.
Larksville	M. L. McCann.	Schuylkill Haven	Talbot A. Hoover.
Latrobe	R. M. Steele.	Scottdale	L. A. Marsh.
Lebanon	E. M. Balsbaugh.	Scranton	S. E. Weber.
Leechburg	S. M. Neagley.	Sewickley	George E. Mark.
Lehighton	B. M. Shull.	Shamokin	Joseph Howarth.
Lewisburg	Henry S. Bourne.	Sharon	W. D. Gamble.
Lewistown	T. L. Brooks.	Sharpsburg	Floyd C. Flory.

[1] No superintendent. Principals of high and grammar schools act in committee.

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VI.—Superintendents of Public Schools in Cities and Towns—Continued.

City.	Superintendent or supervising principal.
PENNSYLVANIA—continued.	
Sharpsville	W. M. Johnston.
Shenandoah	J. W. Cooper.
Shippensburg	A. Lee Shulenberger.
Silver Creek	Patrick S. Canfield.
Slatington	J. W. Snyder.
Somerset	John H. Fike.
South Bethlehem	A. H. Buck.
South Brownsville	D. D. Watkins.
South Fork	W. C. Crawford.
South Williamsport	Chester B. Renn.
Spangler	T. J. Sullivan.
Spring City	Werner E. De Turck.
Steelton	L. E. McGinness.
Stroudsburg	Robert Brown, jr.
Summit Hill	H. D. Levengood.
Sunbury	I. C. M. Ellenberger.
Susquehanna	A. A. Killian.
Swissvale	C. C. Kelso.
Swoyersville (Sugar Notch P. O.)	Joseph H. Finn.
Tamaqua	J. F. Derr.
Tarentum	A. D. Endsley.
Taylor	William S. Robinson.
Throop	John J. O'Hara.
Titusville	Henry Pease.
Towanda	J. W. Cure.
Turtle	W. A. Rodgers.
Tyrone	J. Leonare Gaunt.
Union City	M. J. Blanden.
Uniontown	Frank W. Wright.
Vandergrift	T. T. Allen.
Vandergrift Heights	
Verona	U. G. Palmer.
Warren	R. T. Adams.
Washington	Thomas G. McCleary.
Waynesboro	J. H. Reber.
Waynesburg	Ralph M. Archibald.
Weatherly	H. A. Fox.
Wellsboro	Rock L. Butler.
West Berwick	Harlan R. Snyder.
West Chester	Addison L. Jones.
West Hazleton	Ernest Encke.
West Homestead (Homestead P. O.)	F. L. Rose.
West Newton	E. S. Rice.
West Pittston	L. P. Bierly.
Wilkes-Barre	J. M. Coughlin.
Wilkinsburg	James L. Allison.
Williamsport	F. W. Robbins.
Williamstown	F. M. Haiston.
Wilmerding	Chas. W. Shaffer.
Windber	W. W. Lantz.
Winton	J. J. Judge.
Wyoming	J. E. Piatt.
York	Atreus Wanner.
PHILIPPINE ISLANDS.[1]	
Manila	Jas. F. Scouller.
PORTO RICO.[1]	
San Juan	Geo. V. Keelan.
Ponce	M. A. Dacout.
RHODE ISLAND.	
Apponang	T. H. De Coudre.
Bristol	William F. Miner.
Burrillville	Joseph C. Sweeney.
Central Falls	Emerson L. Adams.
Coventry	Henry M. Walradt.
Cranston	William C. Hobbs.
Cumberland	George W. Morris.
East Providence	J. R. D. Oldham.
Johnston	I. L. Nickerson.
Lincoln	*See* Lonsdale.
Lonsdale	L. A. Whipple.
RHODE ISLAND—continued.	
Narragansett	*See* South Kingstown.
Newport	Herbert W. Lull.
North Kingstown	E. K. Arnold.
North Providence	Roscoe G. Frame.
Pawtucket	Frank C. Draper.
Portsmouth	Emeline B. Eldredge.
Providence	Isaac O. Winslow.
Scituate	Andrew W. Burgess.
Smithfield	Irving C. Mitchell.
South Kingstown	William A. Brady.
Tiverton	Mrs. F. A. Wilcox.
Warren	Leroy G. Staples.
Warwick	William F. Miner.
Westerly	Willard H. Bacon.
Woonsocket	Wendell A. Mowry.
SOUTH CAROLINA.	
Abbeville	Robert B. Cheatham.
Aiken	W. J. McGarity.
Anderson	E. C. McCants.
Bennettsville	W. C. Herbert.
Camden	Richard F. Simpson.
Charleston	A. B. Rhett.
Cheraw	Berry C. McIver.
Chester	W. H. McNairy.
Clinton	A. C. Daniel.
Columbia	E. S. Dreher.
Darlington	J. C. Daniel.
Easley	George W. Coggin.
Florence	W. L. Brooker.
Gaffney	J. H. Witherspoon.
Georgetown	William C. Bynum.
Greenville	J. L. Mann.
Greenwood	W. W. Nickels.
Laurens	B. L. Parkinson.
Marion	T. C. Easterling.
Newberry	J. P. Kinard.
Orangeburg	A. J. Thackston.
Rock Hill	R. C. Burts.
Spartanburg	Frank Evans.
Sumter	S. H. Edmunds.
Union	Davis Jeffries.
SOUTH DAKOTA.	
Aberdeen	H. C. Johnson.
Brookings	J. W. Browning.
Deadwood	B. E. Myers.
Huron	F. L. Whitney.
Lead	Theodore Seam.
Madison	S. T. May.
Mitchell	J. W. McClinton.
Pierre	Morton C. Helm.
Rapid City	Robert B. Irons.
Redfield	J. E. Martin.
Sioux Falls	A. A. McDonald.
Watertown	L. B. Parsons.
Yankton	T. A. Harmon.
TENNESSEE.	
Athens	J. C. Reidnout.
Bristol	R. B. Rubins.
Chattanooga	Chas. H. Winder.
Clarksville	A. J. Smith.
Cleveland	D. C. Arnold.
Columbia	R. L. Harris.
Covington	B. O. Duggan.
Dyersburg	W. M. Campbell.
Elizabethton	A. C. Sherrod.
Erwin	Chas. R. Hubbard.
Fayetteville	Geo. C. Simmons.
Franklin	A. J. Haun.
Gallatin	W. B. Morton.
Greeneville	R. W. Mitchell.
Harriman	S. W. Gentry.
Humboldt	H. H. Ellis.
Jackson	R. L. Bynum.

[1] For complete list of division superintendents see p. 37.

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VI.—Superintendents of Public Schools in Cities and Towns—Continued.

City.	Superintendent or supervising principal.
TENNESSEE—contd.	
Johnson City	P. S. Barnes.
Kalispell	F. O. Randall.
Knoxville	W. E. Miller.
Lafollette	P. W. Kerr.
Lebanon	W. L. Harris.
Lenoir City	H. D. Justice.
Lonsdale	M. G. Walker.
Martin	Eph P. Smith.
Maryville	D. C. Curtis.
Memphis	A. A. Kincannon.
Morristown	Dan T. Rogers.
Murfreesboro	J. H. Crichlow.
Mount Pleasant	S. E. Stephens.
Nashville	J. J. Keys.
Newport	Kathleen Bradley.
Paris	M. M. Phillips.
Park City	J. R. Lowery.
Pulaski	F. E. Renick.
Rockwood	James T. Warren.
Shelbyville	A. J. Brandon.
Tellico Plains	J. C. Miles.
Trenton	J. W. Douglas.
Tullahoma	J. C. Grove.
Union City	A. C. Nute.
TEXAS.	
Abilene	J. L. Brooks.
Amarillo	M. H. Duncan.
Austin	A. N. McCallum.
Ballinger	W. S. Fleming.
Bay City	R. E. Scott.
Beaumont	Henry F. Triplett.
Beeville	W. E. Madderra.
Belton	L. H. Hubbard.
Big Spring	M. H. Brasher.
Bonham	H. D. Fillors.
Bowie	T. P. Walker.
Brady	W. L. Hughes.
Brenham	W. D. Notley.
Brownsville	Lizzie M. Barbour.
Brownwood	V. L. Griffin.
Bryan	W. C. Lawson.
Calvert	I. N. Stephens.
Cameron	J. E. Watts.
Childress	B. F. Sisk.
Cleburne	Emmett Brown.
Coleman	J. E. Hickman.
Comanche	R. F. Holloway.
Commerce	A. L. Day.
Corpus Christi	Joseph C. Tucker.
Corsicana	J. E. Blair.
Crockett	Donald McDonald.
Cuero	A. S. Bush.
Dalhart	J. A. Webb.
Dallas	J. F. Kimball.
Denison	Frank B. Hughes.
Denton	J. W. Beaty.
Dublin	S. L. Wolfe.
Eagle Pass	G. B. M. Snyder.
El Paso	R. J. Tighe.
Ennis	J. D. Coghlan.
Fort Worth	M. H. Moore.
Gainesville	O. R. Anderson.
Galveston	John W. Hopkins.
Georgetown	J. W. Clark.
Gonzales	W. E. Patty.
Greenville	L. C. Gee.
Hillsboro	W. T. Lofland.
Houston	P. W. Horn.
Houston Heights	S. P. Waltrip.
Jacksonville	B. J. Albritton.
Jefferson	Lewis Smith.
Laredo	L. J. Christen.
Lockhart	R. T. Pritchett.
Longview	S. J. Blocher.
Lufkin	S. W. Dirickson.
McKinney	J. S. Carlisle.
Marlin	A. C. Ferguson.
TEXAS—continued.	
Marshall	J. P. Glasgow.
Mart	Edgar McLendon.
Mexia	W. T. Adams.
Mineral Wells	E. O. McNew.
Mount Pleasant	A. V. Peterson.
Nacogdoches	R. F. Davis.
Navasota	J. Thomas Davis.
New Braunfels	B. Holekamp.
Orange	E. B. Stover.
Palestine	Luther B. Gill.
Paris	J. G. Wooten.
Plainview	J. W. Campbell.
Port Arthur	G. M. Sims.
Quanah	J. W. O'Banion.
San Angelo	Felix E. Smith.
San Antonio	Charles S. Meek.
San Marcos	E. M. Day.
Seguin	R. E. L. Adams.
Sherman	J. C. Pyle.
Smithville	W. K. Niles.
Snyder	Davis A. Clark.
Stamford	J. W. Teasley.
Stephenville	Henry Sims.
Sulphur Springs	F. V. Garrison.
Sweetwater	J. H. Bright.
Taylor	John F. O'Shea.
Teague	J. De Witt Bramlette.
Temple	W. W. Clement.
Terrell	Starlin M. N. Marrs.
Texarkana	George H. Carpenter.
Tyler	T. H. Shelby.
Uvalde	A. W. Evans.
Vernon	T. L. Vance.
Victoria	George W. Page.
Waco	B. B. Cobb.
Waxahachie	G. B. Winn.
Weatherford	T. W. Stanley.
Wichita Falls	Lee Clark.
Yoakum	J. H. Burnett.
UTAH.[1]	
American Fork	W. Karl Hopkins.
Bingham	A. L. Willard.
Brigham	D. C. Jensen.
Eureka	I. L. Williamson.
Lehi	W. Karl Hopkins.
Logan	A. Molyneux.
Murray	C. E. Gaufin.
Nephi	Ray Stewart.
Ogden	Walter R. Siders.
Park City	James L. Kearns.
Provo	L. E. Eggertson.
Richfield	I. B. Ball.
Salt Lake City	Ernest A. Smith.
Spanish Fork	J. Preston Creer.
Springville	N. K. Nielsen.
Tooele	J. U. Hicks.
VERMONT.	
Barre	Carroll H. White.
Barton	C. L. Erwin.
Bellows Falls	B. E. Merriam.
Bennington	Albert W. Varney.
Brandon	Bennett C. Douglass.
Brattleboro	Florence M. Wellman.[2]
Burlington	Merrit D. Chittenden.
Colchester	*See* Essex.
Essex	Minnie E. Hays.
Fair Haven	W. H. Hosmer.
Hardwick	C. L. Cowles.
Hartford	Nelson J. Whitehill.
Lyndon	Harlow G. Leavens.
Middlebury	Arthur W. Eddy.
Montpelier	Sherburn C. Hutchinson.
Morristown	Carlton D. Howe.
Newport	E. A. Hamilton.
Northfield	J. Allen Hunter.

[1] Except in the cases of Salt Lake City, Ogden, Logan, Provo, and Murray, cities are part of county districts.
[2] Principal.

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VI.—Superintendents of Public Schools in Cities and Towns—Continued.

City.	Superintendent or supervising principal.
VERMONT—contd.	
Poultney	W. H. Hosmer.
Proctor	W. A. Beebe.
Randolph	Geo. W. Patterson.
Richford	Edwin F. Greene.
Rockingham	*See* Bellows Falls.
Rutland	David B. Locke.
St. Albans	George S. Wright.
St. Johnsbury	Walter H. Young
Springfield	Herbert D. Casey.
Swanton	Homer E. Hunt.
West Rutland	Philip R. Leavenworth.
Woodstock	Everett V. Perkins.
VIRGINIA.	
Alexandria	W. H. Sweeney.
Bedford City	P. S. Murrill.
Big Stone Gap	A. J. Wolfe.
Bristol	F. B. Fitzpatrick.
Buena Vista	J. Perry McCluer.
Charlottesville	James G. Johnson.
Clifton Forge	H. G. Duval.
Covington	J. G. Jeter.
Danville	F. H. Wheatley.
Farmville	J. E. Capps.
Fredericksburg	E. F. Birckhead, jr.
Hampton	J. M. Willis.
Harrisonburg	W. H. Keister.
Lynchburg	E. C. Glass.
Lexington	Harrington Waddell.
Marion	B. E. Copenhaver.
Martinsville	W. B. Gates.
Newport News	D. A. Dutrow.
Norfolk	Richard A. Doble.
Petersburg	F. M. Martin.
Portsmouth	H. A. Hunt.
Pulaski	E. L. Darst.
Radford	J. P. Whitt.
Richmond	J. A. C. Chandler.
Roanoke	Harris Hart.
Salem	R. E. Cook.
Staunton	J. P. Neff.
Suffolk	J. E. Martin.
Williamsburg	H. E. Bennett.
Winchester	M. M. Lynch.
Wytheville	C. J. Hatcher.
WASHINGTON.	
Aberdeen	Geo. B. Miller.
Anacortes	W. A. Jennings.
Bellingham	Elmer L. Cave.
Centralia	Edgar Reed.
Chehalis	R. E. Cook.
Clarkston	F. S. Salisbury.
Cle Elum	G. I. Wilson.
Colfax	J. O. Mattoon.
Ellensburg	E. J. Klemme.
Everett	C. R. Frazier.
Hillyard	W. E. Ransom.
Hoquiam	E. L. McDonnell.
North Yakima	A. C. Davis.
Olympia	Chauncey E. Beach.
Port Townsend	Frank Drake, jr.
Pullman	J. W. Graham.
Puyallup	E. B. Walker.
Renton	W. B. Satterthwait.
Roslyn	W. G. Whitfield.
Seattle	Frank B. Cooper.
Snohomish	C. N. Hodge.
South Bend	Le Forest McCroskey.
Spokane	O. C. Pratt.
Tacoma	William F. Geiger.
Vancouver	C. W. Shumway.
Walla Walla	W. M. Kern.
Wenatchee	G. W. Bohannan.
WEST VIRGINIA.	
Benwood	H. L. Pedicord.
Bluefield	C. R. Murray.
WEST VIRGINIA—continued.	
Buckhannon	W. R. Gross.
Cameron	J. S. Bonar.
Charleston	Geo. S. Laidley.
Charles Town	Wright Denny.
Chester	J. C. Timberman.
Clarksburg	J. A. Jackson.
Davis	C. Fitzhugh Lee.
Elkins	W. W. Trent.
Fairmont	O. G. Wilson.
Grafton	L. W. Burns.
Hinton	H. F. Griffey.
Huntington	Clarence L. Wright.
Keyser	J. C. Sanders.
†McMechen	H. L. Pedicord.
Mannington	David A. Ward.
Martinsburg	Wm. C. Morton.
Morgantown	R. C. Smith.
Moundsville	H. V. Merrick.
Parkersburg	F. M. Longanecker.
Princeton	J. N. Hoylman.
Richwood	J. H. Patterson.
Sistersville	W. W. Strain.
Wellsburg	W. N. Beetham.
Wheeling	C. E. Githens.
Williamson	A. C. Davis.
WISCONSIN.	
Antigo	B. H. Strong.
Appleton	Carrie E. Morgan.
Ashland	F. J. Shannon.
Baraboo	A. C. Kingsford.
Beaver Dam	H. M. Comins.
Beloit	F. E. Converse.
Berlin	W. E. Bush.
Burlington	Fred. L. Wilter.
Chippewa Falls	G. O. Banting.
Columbus	John Dixon.
Cudahy	Jesse F. Cary.
De Pere	John F. Hogan.
Eau Claire	W. H. Schulz.
Edgerton	F. O. Holt.
Fond du Lac	J. E. Roberts.
Fort Atkinson	Wakelin McNeel.
Grand Rapids	C. W. Schwede.
Green Bay	A. W. Burton.
Hartford	W. E. Elmer.
Hudson	Ira O. Hubbard.
Janesville	H. H. Faust.
Jefferson	E. W. Waite.
Kaukauna	Leo G. Schussmann.
Kenosha	Mrs. Mary D. Bradford.
La Crosse	B. E. McCormick.
Lake Geneva	J. M. Beck.
Madison	R. B. Dudgeon.
Manitowoc	P. J. Zimmers.
Marinette	George H. Landgraf.
Marshfield	Carl W. Otto.
Menosha	John Callahan.
Menomonie	C. G. White.
Merrill	William Milne.
Milwaukee	Milton C. Potter.
Mineral Point	W. R. Rood.
Monroe	J. W. T. Ames.
Neenah	E. M. Beeman.
New London	Willard Ford
Oconomowoc	A. L. Halverson.
Oconto	R. Q. Klotz.
Oshkosh	M. N. MacIver.
Platteville	C. E. Slothower.
Plymouth	John J. Enright.
Portage	Chas. C. Bishop.
Port Washington	Chas. H. Backhuber.
Prairie du Chien	Nicholas Gunderson.
Racine	B. E. Nelson.
Reedsburg	A. B. Olson.
Rhinelander	W. P. Colburn.
Rice Lake	Henry J. Steeps.
Richland Center	J. P. Ballantyne.
Ripon	A. F. Cook.
Shawano	Fred. G. Bishop.

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VI.—Superintendents of Public Schools in Cities and Towns—Continued.

City.	Superintendent or supervising principal.	City.	Superintendent or supervising principal.
WISCONSIN—con.		WISCONSIN—con.	
Sheboygan	W. P. Roseman.	Waupun	Larue F. Smith.
South Milwaukee	Fred W. Hein.	Wausau	S. B. Tobey.
Sparta	Frank C. Bray.	Waukatosa	Philip A. Kolb.
Stanley	Don Miller.	West Allis	Thomas J. Jones.
Stevens Point	H. C. Snyder.	Whitewater	C. W. Rittenburg.
Stoughton	C. J. Anderson.	WYOMING.	
Sturgeon Bay	R. Soukup.		
Superior	J. G. Moore.	Casper	George Wilder.
Tomah	F. M. Bray.	Cheyenne	Ira B. Fee.
Tomahawk	Harmon F. Schell.	Evanston	George H. Coverdale.
Two Rivers	W. J. Hamilton.	Laramie	J. B. Crabbe.
Washburn	G. D. Kyper.	Rawlins	C. L. Martin.
Watertown	Thomas J. Berto.	Rock Springs	F. O. Munson.
Waukesha	G. F. Loomis.	Sheridan	J. J. Early.
Waupaca	E. H. Miles.		

VII.—Assistant and District Superintendents of Schools in Cities of Over 25,000 Population.

[Assistant superintendents, unless otherwise specified.]

City.	Assistant superintendents, and name or number of the district or division over which they have charge.	City.	Assistant superintendents, and name or number of the district or division over which they have charge.
Birmingham, Ala	C. B. Glenn.	Terre Haute, Ind	J. M. Tilley.
Mobile, Ala	C. F. Vigor.	Des Moines, Iowa	J. W. Studebaker.
Los Angeles, Cal	J. B. Monlux.	Sioux City, Iowa	R. L. Hamilton.
Oakland, Cal	L. B. Avery.	Topeka, Kans	H. B. Wilson.
San Francisco, Cal	Deputy superintendents: Thomas L. Heaton. Wm. B. Howard. Archibald J. Cloud. Wm. H. DeBell. Mary Magner.	Lexington, Ky	M. A. Cassidy.
		Louisville, Ky	Ida Rudolph.[2]
		New Orleans, La	Nicholas Bauer. Paul B. Habans.
		Baltimore, Md	Charles A. A. J. Miller, secondary schools.
San Jose, Cal	Anne Darling.		Robert W. Elliott, District No. 1.
Sacramento, Cal	Mrs. M. R. O'Neil.		Rowland Watts, District No. 2.
Denver, Colo	Frank Goff.		Andrew J. Pietsch, District No. 3.
Bridgeport, Conn	F. O. Smith.		Joseph C. Hands, District No. 4.
Hartford, Conn	T. S. Weaver.		
New Britain, Conn	Ella A. Fallon.[1]		
New Haven, Conn	J. C. Knowlton.		
Wilmington, Del	Bessie Devine.		
Washington, D. C	Stephen E. Kramer.	Boston, Mass	Mrs. E. C. Ripley.
	R. C. Bruce.	Cambridge, Mass	C. M. Herlihy.
Atlanta, Ga	J. C. Wardlaw.	Everett, Mass	Abbie A. Smith.
Augusta, Ga	T. H. Garrett.	Fall River, Mass	Mary A. Mugan.
Savannah, Ga	F. N. Ferguson.	Jackson, Mich	G. L. McCulloch.
Chicago, Ill	Ella C. Sullivan.	Lowell, Mass	
	Charles D. Lowry, assignment of teachers, and District No. 1.	Lynn, Mass	Wilmer Kinnan.
		New Bedford, Mass	Josephine Stuart.
		Newton, Mass	Mabel C. Bragg.
	Ernest E. Cole, District No. 2.	Springfield, Mass	Bertha McConkey.
	Elizabeth W. Murphy, Districts Nos. 3 and 4.	Worcester, Mass	John F. Gannon.
			Alice Louise Harris.
	William M. Roberts, District No. 5, and evening and vocational schools.		Walter S. Young.
		Battle Creek, Mich	Dessalee Ryan.
	Edward C. Rosseter, District No. 6.	Detroit, Mich	C. L. Spain.
		Grand Rapids, Mich	Mrs. T. Townsend.
	Rufus M. Hitch, District No. 7.	Lansing, Mich	J. W. Sexton.
		Duluth, Minn	W. H. Schilling.
	Minnie R. Cowan, District No. 8.	Minneapolis, Minn	B. B. Jackson.
		St. Paul, Minn	
	Orville T. Bright, District No. 9.	Kansas City, Mo	J. H. Markley.
		St. Joseph, Mo	Fannie Brennan.
	Samuel B. Allison, District No. 10, and special divisions.	St. Louis, Mo	C. G. Rathmann.
		Butte, Mont	Jennie R. Fadis.
		Lincoln, Nebr	Anna Badger.
Decatur, Ill	Katharine Hamilton.	Omaha, Nebr	Belle M. Ryan.
Joliet, Ill	J. F. Skeel.	Hoboken, N. J	J. F. Brandt.
Indianapolis, Ind	H. S. Gruver.	Jersey City, N. J	E. A. Murphy.
South Bend, Ind	J. F. Nuner.	Newark, N. J	D. B. Corson.

[1] Supervisor of instruction in kindergarten and elementary grades.
[2] Supervising principal.

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VII.—Assistant and District Superintendents of Schools in Cities of Over 25,000 Population—Continued.

City.	Assistant superintendents, and name or number of the district or division over which they have charge.
New Rochelle, N.Y.	Mary R. Chamberlin.
New York, N. Y.	Associate superintendents:
	Andrew W. Edson.
	William L. Ettinger.
	John H. Haaren.
	William McAndrew.
	Clarence E. Meleney.
	Edward B. Shallow.
	Gustave Straubenmuller.
	John H. Walsh.
	District superintendents:
	William A. Campbell.
	William A. Boylan.
	John P. Conroy.
	John Dwyer.
	James M. Edsall.
	Cornelius E. Franklin.
	John Griffin.
	I. Edwin Goldwasser.
	Henry W. Jameson.
	Henry W. Jenkins.
	Cecil A. Kidd.
	James Lee.
	Charles W. Lyon.
	Mrs. Ruth G. McGray.
	John T. Nicholson.
	William J. O'Shea.
	Arthur C. Perry, jr.
	James J. Reynolds.
	John S. Roberts.
	Edgar Dubs Shimer.
	Grace C. Strachan.
	Edward W. Stitt.
	Joseph S. Taylor.
	Benjamin Veit.
	Joseph H. Wade.
	James J. McCabe.
Rochester, N. Y.	Alfred P. Fletcher.
Yonkers, N. Y.	L. F. Hodge.
Charlotte, N. C.	Alexander Graham.
Cincinnati, Ohio	E. D. Roberts.
Cleveland, Ohio	A. C. Eldredge.
Columbus, Ohio	C. H. Fullerton.
Toledo, Ohio	H. S. Hutchins.
Portland, Oreg.	D. A. Grout.
Allentown, Pa.	C. F. Seidel.
Easton, Pa.	A. J. La Barre.
Philadelphia, Pa.	Associate superintendents:
	George Wheeler.
	Oliver P. Cornman.
	Albert H. Raub.
	John C. Frazee.
Philadelphia, Pa.—Continued.	Associate superintendents—Continued.
	Louis Nusbaum.
	Theo. L. MacDowell.
	District superintendents:
	Charles H. Breisford, District No. 1.
	John Christopher, District No. 2.
	William W. Brown, District No. 3.
	Charles A. Coulomb, District No. 4.
	M. C. Cooper, District No. 5.
	Robert L. Burns, District No. 6.
	Armand J. Gerson, District No. 7.
	H. White, District No. 8.
	S. L. Chew, District No. 9.
	John L. Shroy, District No. 10.
Pittsburgh, Pa.	Associate superintendents:
	Samuel Andrews, Central District.
	R. M. Sherrard, East End District.
	S. S. Baker, South Side District.
	C. H. Garwood, North Side District.
Portland, Me.	Helen M. Robinson, deputy.
Reading, Pa.	Amanda E. Stout.
	D. E. Crosley.
Shenandoah, Pa.	Katherine McHale
Wilkes-Barre, Pa.	H. H. Zeiser.
Providence, R. I.	C. F. Towne.
Memphis, Tenn.	N. M. Williams.
El Paso, Tex.	Inez Parker.
Salt Lake, Utah.	G. H. Child.
Richmond, Va.	A. H. Hill.
Seattle, Wash.	Frank E. Willard, North Section.
	Edward G. Quigley, South Section.
Spokane, Wash.	Data Rothrock.
Tacoma, Wash.	W. O. Osburn.
	E. E. Crook.
Madison, Wis.	Mary A. O'Keefe.
Sheboygan, Wis.	Addie Libert.
Superior, Wis.	P. B. Clemens.
Milwaukee, Wis.	A. E. Kagel.

VIII.—Business Managers in Cities of Over 25,000 Population.

City.	Business manager.
Mobile, Ala.	Richard Hines, jr.[1]
Los Angeles, Cal.	A. M. Jennings.
Oakland, Cal.	D. W. Pratt.
Pasadena, Cal.	N. G. Falker.
San Jose, Cal.	Alexander Sherriffs.
Denver, Colo.	Frank Goff.
Bridgeport, Conn.	W. J. Matthews.
New Britain, Conn.	L. H. Holmes.
New Haven, Conn.	G. T. Hewlett.
Chicago, Ill.	J. A. Guilford.
Decatur, Ill.	Arthur Kinkade.
Quincy, Ill.	C. L. Sears.
Rockford, Ill.	A. G. Everett.
Indianapolis, Ind.	J. E. Cleland.
South Bend, Ind.	E. I. Kizer.
Terre Haute, Ind.	Albert Allen.
Council Bluffs, Iowa	Leonard Lentzinger.
Davenport, Iowa	J. D. McCollister.
Des Moines, Iowa	A. L. Clinite.
Dubuque, Iowa	Leo Palen.
Topeka, Kans.	M. C. Holman.
Covington, Ky.	W. A. Shore.
Lexington, Ky.	J. O. H. Simrall.
Newport, Ky.	E. Gerhardt.
Louisville, Ky.	S. D. Jones.
New Orleans, La.	M. J. Dixon.

[1] Secretary.

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VIII.—Business Managers in Cities of Over 25,000 Population—Continued.

City.	Business manager.	City.	Business manager.
Baltimore, Md	J. H. Roche.	Troy, N. Y.	W. A. Dunn.
Boston, Mass	W. T. Keough.	Yonkers, N. Y.	E. V. S. Bashford.
Cambridge, Mass	C. J. Church.	Cincinnati, Ohio	C. W. Handman.
Fitchburg, Mass	N. C. Upham.	Youngstown, Ohio	W. N. Ashbaugh.
Lowell, Mass	R. O. Willmarth.	Muskogee, Okla	F. V. Maddin.
Malden, Mass	F. G. Marshall.	Oklahoma, Okla	H. M. Fairey.
Newton, Mass	Celia M. Chase.	Portland, Oreg	R. H. Thomas.
Worcester, Mass	Joseph Beale.[1]	Altoona, Pa	C. M. Piper.
Detroit, Mich	C. A. Gadd.	Chester, Pa	W. S. Wiser.
Flint, Mich	H. L. Hills.	Easton, Pa	R. E. Peifer.
Grand Rapids, Mich	H. N. Morrill.	Erie, Pa	W. J. Flynn.
Lansing, Mich	Sylvia Hunter.	Hazleton, Pa	D. T. Evans.
Saginaw, Mich. (East Side).	W. C. Klumpp.	Johnstown, Pa	C. H. Meyer.
Saginaw, Mich. (West Side).	Charles Klinen.	New Castle, Pa	H. J. Marquis.
Minneapolis, Minn	G. F. Womrath.	Norristown, Pa	H. W. Aikins.
Joplin, Mo	A. E. McClaren.	Philadelphia, Pa	Wm. Dick.
Kansas City, Mo	J. B. Jackson.	Pittsburgh, Pa	C. M. McKee.
Springfield, Mo	E. J. Hoffman.	Scranton, Pa	E. D. Fellows.
St. Joseph, Mo	A. L. Loving.	Shenandoah, Pa	J. J. Cuff.
Butte, Mont	E. M. Sylvester.	Williamsport, Pa	A. J. Updegraft.
Lincoln, Nebr	J. G. Ludlam.	Memphis, Tenn	A. B. Hill.
Bayonne, N. J	J. D. Boyd.	Nashville, Tenn	H. S. Van Deren.
East Orange, N. J	W. A. Clapp.	Austin, Tex	F. W. Bopp.[2]
Elizabeth, N. J	Thomas Mackessy.	El Paso, Tex	S. F. Sawyer.
Hoboken, N. J	R. A. Marnell.	Galveston, Tex	Edwin Bruce.
Orange, N. J	W. G. McCurdy.	Houston, Tex	W. Peine.
Paterson, N. J	J. F. Dunphey.	San Antonio, Tex	Paul H. Scholz.
Passaic, N. J	J. F. Kelly.	Waco, Tex	E. H. Vaden.
Trenton, N. J	W. A. Poland.	Richmond, Va	C. P. Walford.
Binghamton, N. Y.	D. J. Kelly.	Seattle, Wash	Reuben W. Jones.[3]
Buffalo, N. Y.	James Stover.	Spokane, Wash	C. I. Carpenter.
Mount Vernon, N. Y.	E. Q. Bienvenu.	Tacoma, Wash	Alfred Lister.
Rochester, N. Y.	J. S. Mullan.	Huntington, W. Va.	W. H. Lyons.
Syracuse, N. Y.	P. D. Cooney.	Superior, Wis	L. A. Nichols.
		Milwaukee, Wis	F. M. Harbach.

[1] Clerk of school committee. [2] Purchasing agent. [3] Secretary of board.

IX.—Chief Medical Inspector or School Health Officer in Cities of Over 25,000 Population.

City.	Chief medical inspector or school health officer.	City.	Chief medical inspector or school health officer.
Birmingham, Ala	Dr. J. S. McLester.	Indianapolis, Ind	Dr. H. G. Morgan.
Mobile, Ala	Dr. Toulmin Gaines.	Council Bluffs, Iowa	Dr. V. L. Treynon.
Montgomery, Ala	Dr. C. T. Pollard.	Davenport, Iowa	Dr. Peter H. Schroeder.
Little Rock, Ark	Dr. I. J. Brooks.	Des Moines, Iowa	Dr. Fred Moore.
Los Angeles, Cal	Dr. I. R. Bancroft.	Sioux City, Iowa	Clara Tibbott.
Oakland, Cal	Dr. N. K. Foster.	Waterloo, Iowa	Dr. B. C. Everall.
Pasadena, Cal	Dr. R. C. Olmsted.	Covington, Ky	Dr. J. A. Ryan.
San Diego, Cal	Dr. A. J. Thornton.	Lexington, Ky	Dr. L. C. Redmon.
San Francisco, Cal	Dr. T. D. Maher.	Louisville, Ky	Dr. W. E. Grant.
San Jose, Cal	Dr. N. H. Bullock.	Newport, Ky	Dr. E. A. North.
Denver, Colo	Dr. Paul W. Dorr.	New Orleans, La	Dr. Edmund Moss.
Bridgeport, Conn	Dr. Florence A. Sherman.	Baltimore, Md	Dr. J. D. Blake.
Hartford, Conn	C. P. Botsford, M. D.	Boston, Mass	Dr. W. H. Devine.
Meriden, Conn	Dr. H. W. McElman.	Brockton, Mass	Dr. A. V. Lyon.
New Britain, Conn	Dr. Waltman Lyon.	Chelsea, Mass	Dr. G. B. Fenwick.
New Haven, Conn	Dr. F. O. Wright.	Chicopee, Mass	Dr. J. H. C. Gallagher.
Norwich, Conn	Dr. Louis Cassidy.	Everett, Mass	Dr. J. A. Brewin.
Stamford, Conn	Dr. I. F. Carroll.	Fall River, Mass	Dr. Samuel Sandler.
Washington, D. C.	Dr. W. C. Woodward.	Fitchburg, Mass	Dr. B. W. Carey.
Augusta, Ga	Dr. H. J. Baker.	Haverhill, Mass	Dr. J. F. Croston.
Atlanta, Ga	Dr. W. N. Adkins.	Holyoke, Mass	Dr. Walter N. Cobb.
Aurora, East, Ill	Agnes Laeffler.	Malden, Mass	Dr. F. W. Plummer.
Chicago, Ill	Dr. J. D. Robertson.	Newton, Mass	Dr. F. G. Curtis.
Decatur, Ill	Anna C. Trumble.	Salem, Mass	Dr. G. E. Tucker.
Elgin, Ill	Frantes Teal.	Somerville, Mass	Dr. F. L. Morse.
Rockford, Ill	Dr. D. W. Day.	Taunton, Mass	Dr. F. A. Murphy.
Evansville, Ind	Dr. W. C. Dyer.	Worcester, Mass	Dr. E. H. Trowbridge.[1]
Fort Wayne, Ind	Dr. Charles R. Dancer.	Detroit, Mich	Dr. W. H. Price.

[1] Chairman of board of health.

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IX.—Chief Medical Inspector or School Health Officer in Cities of Over 25,000 Population—Continued.

City.	Chief medical inspector or school health officer.	City.	Chief medical inspector or school health officer.
Jackson, Mich.	Dr. C. S. Clarke.	Columbus, Ohio.	Dr. H. M. Platten.
Saginaw (East Side), Mich.	Dr. W. A. DeFoe.	Dayton, Ohio.	Dr. L. F. Bucher.
		Lorain, Ohio.	Dr. Charles R. Meek.
Saginaw (West Side), Mich.	Dr. J. H. Powers.	Toledo, Ohio.	Dr. P. Bruce Brockway.
		Youngstown, Ohio.	Dr. H. E. Welch.
Duluth, Minn.	Dr. J. H. Andres.	Oklahoma, Okla.	Dr. H. H. Cloudman.
Minneapolis, Minn.	Dr. C. H. Keene.	Altoona, Pa.	Dr. L. E. McKee.
St. Paul, Minn.	Dr. E. A. Meyerding.	Allentown, Pa.	Dr. T. H. Weaber.
Joplin, Mo.	Dr. R. B. Tyler.	Chester, Pa.	Dr. F. W. Notnagle.
St. Joseph, Mo.	Dr. H. Forgrave.	Easton, Pa.	Dr. V. S. Messinger.
St. Louis, Mo.	Dr. James Stewart.	Erie, Pa.	Dr. G. P. Gredway.
Lincoln, Nebr.	Dr. A. E. Johann.	Harrisburg, Pa.	Dr. C. S. Rebuck.
Atlantic City, N. J.	Dr. E. C. Chew.	Johnstown, Pa.	Dr. J. W. Bancroft.
Bayonne, N. J.	Dr. F. M. Corwin.	Lancaster, Pa.	Dr. C. H. Witmer.
Camden, N. J.	Dr. H. H. Davis.	New Castle, Pa.	Dr. R. L. Van Wert.
East Orange, N. J.	Dr. W. L. Harrington.	Norristown, Pa.	Dr. A. H. Read.
Hoboken, N. J.	Dr. J. F. Londrigan.	Philadelphia, Pa.	Dr. W. S. Cornell.
Jersey City, N. J.	Dr. H. H. Brinkerhoff.	Pittsburgh, Pa.	Dr. H. B. Burns.
Newark, N. J.	Dr. G. J. Holmes.	Reading, Pa.	Dr. Hiester Bucher.
Orange, N. J.	Ella A. Coughlan.	Scranton, Pa.	Dr. W. E. Keller.
Paterson, N. J.	Dr. W. L. Dunning.	Shenandoah, Pa.	Dr. J. S. Monahan.
Passaic, N. J.	Dr. Ralph Vreeland.	Williamsport, Pa.	Dr. W. F. Kunkle.
Perth Amboy, N. J.	Dr. W. H. McCormick.	Newport, R. I.	Dr. J. W. Sampson.
Trenton, N. J.	Dr. J. O. McDonald	Pawtucket, R. I.	Dr. B. U. Richards.
Albany, N. Y.	Dr. C. P. McCord.	Providence, R. I.	Dr. C. V. Chapin.
Amsterdam, N. Y.	Dr. John Schiller.	Warwick, R. I.	Dr. R. F. Lockwood.
Auburn, N. Y.	Dr. L. Belle Richens.	Knoxville, Tenn.	Dr. Edgar McNabb.
Binghamton, N. Y.	Dr. Edith M. Walker.	Memphis, Tenn.	Dr. Neumon Taylor.
Buffalo, N. Y.	Dr. F. E. Fronczak.	Nashville, Tenn.	Dr. E. L. Roberts.
Elmira, N. Y.	Dr. J. A. Bennett.	El Paso, Tex.	Dr. W. C. Klutts.
Jamestown, N. Y.	Dr. F. A. Purcell.	Austin, Tex.	Mrs. N. B. Scott.[1]
Lansingburgh, N. Y.	Dr. C. B. Sprague.	Galveston, Tex.	Dr. Boyd Reading.
Mount Vernon, N. Y.	Dr. W. S. Woodruff.	Houston, Tex.	Dr. F. J. Slataper.
Newburgh, N. Y.	Dr. E. L. Fulk.	San Antonio, Tex.	Dr. Homer T. Wilson.
New Rochelle, N. Y.	Dr. Carol T. Stevens.	Waco, Tex.	Dr. J. R. Ferrell.
New York, N. Y.	Dr. Josephine Baker.	Salt Lake City, Utah	Dr. E. W. Whitney.
Niagara Falls, N. Y.	Dr. E. E. Gillick.	Norfolk, Va.	Dr. J. L. Stringfellow.
Poughkeepsie, N. Y.	Dr. C. A. Crispell.	Portsmouth, Va.	Dr. E. A. Hatton.
Rochester, N. Y.	Dr. G. W. Goler.	Richmond, Va.	Dr. N. T. Ennett.
Schenectady, N. Y.	Dr. W. J. Books.	Seattle, Wash.	Dr. I. C. Brown.
Syracuse, N. Y.	Dr. J. C. Palmer.	Spokane, Wash.	Dr. J. E. Drake.
Troy, N. Y.	Dr. Melville Dickinson.	Tacoma, Wash.	Dr. E. A. Layton.
Utica, N. Y.	Dr. J. W. Dimon.	Huntington, W. Va.	Dr. J. E. Rader.
Watertown, N. Y.	Dr. P. E. Thornhill.	Wheeling, W. Va.	Dr. R. U. Drinkard.
Yonkers, N. Y.	Dr. P. S. McCormick.	La Crosse, Wis.	Dr. J. M. Furstman.
Charlotte, N. C.	Dr. J. K. Reid.	Madison, Wis.	Dr. L. H. Price.
Akron, Ohio.	Dr. J. J. McShane.	Oshkosh, Wis.	Dr. A. H. Broche.
Canton, Ohio.	Dr. I. B. Smock.	Superior, Wis.	Dr. W. A. McEachern.
Cincinnati, Ohio.	Dr. W. H. Peters.	Milwaukee, Wis.	Dr. G. P. Barth.
Cleveland, Ohio.	Dr. E. A. Peterson.		

[1] Nurse.

X.—Colleges and Universities—Presidents and Heads of Department of Education.

Location.	College or university.	For men, for women, or coeducational.	Name of president.	Name of head of department or school of education.
ALABAMA.				
Athens	Athens Female College	Women.	Benjamin B. Glasgow, A. B.	Mabel Whitehead, A. B.
Auburn	Alabama Polytechnic Institute.	Coed.	Charles C. Thach, LL. D.	Zebulon V. Judd, A. M.
Birmingham	Birmingham College	Coed.	Thornwell Haynes, A. M.	Claud D. Nelson, A. B.
Do	Howard College	Coed.	James M. Shelburne, LL. D.	Nannie M. Hiden, A. M.
Greensboro	Southern University	Coed.	Charles A. Rush, D. D.	Neil M. Lewis, A. M.
Marion	Judson College	Women.	Paul V. Bomar, D. D.	

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X.—COLLEGES AND UNIVERSITIES—PRESIDENTS AND HEADS OF DEPARTMENT OF EDUCATION—Continued.

Location.	College or university.	For men, for women, or coeducational.	Name of president.	Name of head of department or school of education.
ALABAMA—contd.				
Montgomery	Woman's College of Alabama.	Women.	Miffin W. Swartz, Ph. D.	Grace Lyman.
St. Bernard	St. Bernard College	Men	Bernard Menges, O. S. B.	
Spring Hill	Spring Hill College	Men	Edward Cummings, S. J.	
University	University of Alabama	Coed	George H. Denny, LL. D.	James J. Doster, A. M.
ARIZONA.				
Tucson	University of Arizona	Coed	Rufus B. von Klein Smid, Sc. D.	Herbert H. Foster, Ph.D.
ARKANSAS.				
Arkadelphia	Henderson-Brown College.	Coed	James M. Workman, LL. D.	
Do	Ouachita College	Coed	Charles E. Dicken, D.D.	Mrs. E. M. Blake, A. B.
Batesville	Arkansas College	Coed	Wm. S. Lacy, A. B	Sidney Pickens, A. B.
Clarksville	Arkansas Cumberland College.	Coed	J. L. Spence	
Conway	Central College	Women.	John W. Conger, LL.D.	Doak S. Campbell, A. B.
Do	Hendrix College	Coed	John H. Reynolds, LL. D.	
Fayetteville	University of Arkansas.	Coed	John C. Futrall, A. M.	James R. Jewell, Ph. D.
CALIFORNIA.				
Berkeley	University of California.	Coed	Benj. Ide Wheeler, LL. D.	Alexis F. Lange, Ph.D.
Claremont	Pomona College	Coed	James A. Blaisdell, D. D.	Bernard C. Ewer, Ph. D.
Los Angeles	Occidental College	Coed	John W. Baer, LL. D.	George F. Cook, Ph. D.
Do	University of Southern California.	Coed	George F. Bovard, LL. D.	Thomas B. Stowell, LL. D.
Mills College	Mills College	Women.	Aurelia H. Reinhardt, Ph. D.	Kate Brousseau, Ph. D.
Oakland	St. Mary's College	Men	Brother Vellesian, A.B.	
Pasadena	Throop College of Technology.	Men	James A. B. Scherer, LL. D.	
Redlands	University of Redlands	Coed	Victor L. Duke, A. M.	Herbert E. Wise, A. M.
St. Helena	Pacific Union College	Coed	Charles W. Irwin, A.M.	George W. Rine, Litt M.
San Francisco	St. Ignatius University	Men	Patrick J. Foote, D. D.	
San Jose	College of the Pacific	Coed	John L. Seaton, Ph.D.	J. William Harris, Ph.D.
Santa Clara	University of Santa Clara	Men	Walter Thornton, S.J.	Cornelius Buckley, S. J.
Stanford University.	Leland Stanford Junior University.	Coed	Ray L. Wilbur, A. M.	Ellwood P. Cubberley, Ph. D.
Whittier	Whittier College	Coed	Abealom Rosenberger, LL. D.	
COLORADO.				
Boulder	University of Colorado	Coed	Livingston Farrand, LL. D.	Frank E. Thompson, A. B.
Colorado Springs.	Colorado College	Coed	William F. Slocum, LL. D.	J. V. Breitwieser, Ph. D.
Denver	College of the Sacred Heart.	Men	J. J. Brown, S. J	
Fort Collins	Colorado Agricultural College.	Coed	Chas. A. Lory, LL. D.	
Golden	State School of Mines	Men	Wm. B. Phillips, Ph.D.	
Greeley	State Teachers College of Colorado.	Coed	John G. Crabbe, LL.D.	
Montclair	Colorado Woman's College.	Women.	J. P. Treat, A. M	
University Park.	University of Denver	Coed	Henry A. Buchtel, LL. D., chancellor.	Daniel E. Phillips, Litt. D.
Westminster	Westminster College	Men		
CONNECTICUT.				
Hartford	Trinity College	Men	Flavel S. Luther, LL. D.	
Middletown	Wesleyan University	Men	William A. Shanklin, LL. D.	

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X.—Colleges and Universities—Presidents and Heads of Department of Education—Continued.

Location.	College or university.	For men, for women, or coeducational.	Name of president.	Name of head of department or school of education.
CONNECTICUT—continued.				
New Haven	Yale University	Men	Arthur T. Hadley, LL. D.	Herbert Cameron, Ph. D.
New London	Connecticut College for Women.	Women.	Frederick H. Sykes, Ph. D.	
Storrs	Connecticut Agricultural College.	Coed	Charles L. Beach, B.S.	
DELAWARE.				
Newark	Delaware College	Coed	Samuel C. Mitchell, Ph. D.	George S. Counts, Ph. D.
DISTRICT OF COLUMBIA.				
Washington	American University	Coed	Franklin Hamilton, S. T. B., chancellor.	
Do	Catholic University of America.	Men	Thomas J. Shahan, S. T. D., rector.	Thomas E. Shields, Ph. D.
Do	Gallaudet College	Coed	Percival Hall, M. A.	
Do	Georgetown University.	Men	Alphonsus J. Donlon, S. J.	
Do	George Washington University.	Coed	Charles H. Stockton, LL. D.	William C. Ruediger, Ph. D.
Do	Howard University (colored).	Coed	Stephen M. Newman, D. D.	Lewis B. Moore, Ph. D.
Do	St. John's College	Men	Brother Alfred, F.S.C.	
Do	Trinity College	Women.	Sister Catherine Aloysius, S. N. D.	
FLORIDA.				
Deland	John B. Stetson University.	Coed	Lincoln Hulley, LL.D.	D. J. Blacker, A. M.
Gainesville	University of Florida	Men	Albert A. Murphree, LL. D.	John A. Thackston, Ph. D.
Lake City	Columbia College	Coed	Andrew P. Montague, LL. D.	
Sutherland	Southern College	Coed	R. H. Alderman, A.B.	Letha M. Jones, A. M.
Tallahassee	Florida State College for Women.	Women.	Edward Conradi, Ph. D.	Nathaniel M. Salley, A. B.
Winter Park	Rollins College	Coed	George M. Ward, LL. D., acting.	
GEORGIA.				
Athens	University of Georgia	Men	David C. Barrow, LL. D., chancellor.	Thomas J. Wooster, LL. D.
Atlanta	Atlanta University (colored).	Coed	Edward T. Ware, A.B.	George A. Towns, A. M.
Do	Georgia School of Technology.	Men	Kenneth G. Matheson, LL. D.	
Do	Morehouse College (colored).	Men	John Hope, A. M.	
Do	Morris Brown University (colored).	Coed	William A. Fountain, D. D.	D. H. Sims, A. B.
College Park	Cox College	Women.	C. Lewis Fowler, D.D.	E. C. James, Litt. D.
Cuthbert	Andrew College	Women.	J. W. Malone, D. D.	Alice F. Glascock, A. M.
Dahlonega	North Georgia Agricultural College.	Coed	Gustavus R. Glenn, LL. D.	George W. Camp, A. M.
Decatur	Agnes Scott College	Women.	F. H. Gaines, LL. D.	A. W. Turner, Ph. D.
Demorest	Piedmont College	Coed	Frank E. Jenkins, D. D.	Carl C. Guise, A. M.
Forsyth	Bessie Tift College	Women.	C. H. S. Jackson, LL. D.	
Gainesville	Brenau College	Women.	Haywood J. Pearce, Ph. D.	T. J. Simmons, LL. D.
Lagrange	Lagrange Female College.	Women.	Daisey Davies	
Do	Southern Female College.	Women.	James E. Ricketson, B. S.	
Macon	Mercer University	Men	Wm. L. Pickard, LL. D.	John G. Harrison, D. D.
Do	Wesleyan Female College.	Women.	C. R. Jenkins, D. D.	Lois Rogers, A. B.

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X.—Colleges and Universities—Presidents and Heads of Department of Education—Continued.

Location.	College or university.	For men, for women, or coeducational.	Name of president.	Name of head of department or school of education.
GEORGIA—contd.				
Oxford	Emory University	Men	James E. Dickey, D.D.	
Rome	Shorter College	Women	A. W. Van Hoose	
South Atlanta	Clark University (colored).	Coed	Harry A. King, D. D.	Isaac H. Miller, A. B.
HAWAII.				
Honolulu	College of Hawaii	Coed	Arthur L. Dean, Ph.D.	
IDAHO.				
Caldwell	College of Idaho	Coed	William J. Boone, D. D.	Payne A. Boulton, A. M.
Moscow	University of Idaho	Coed	Melvin A. Brannon, Ph. D.	Philip Soulan, A. M.
ILLINOIS.				
Abingdon	Hedding College	Coed	Walter D. Agnew D. D.	A. J. Bissinger, A. M.
Aledo	William and Vashti College.	Coed	Ward L. Ray, A. M.	Roy F. Swift, Ph. D.
Aurora	Aurora College	Coed	Orrin R. Jenks, A. B.	
Bloomington	Illinois Wesleyan University.	Coed	Theodore Kemp, LL.D.	John W. Henninger, A. M.
Bourbonnais	St. Viator College	Men	John P. O'Mahoney, A. M.	
Carlinville	Blackburn College	Coed	Wm. M. Hudson, D. D.	
Carthage	Carthage College	Coed	Harvey D. Hoover, Ph. D.	Letta Simmons, A. B.
Chicago	Armour Institute of Technology.	Men	Frank W. Gunsaulus, LL. D.	
Do	De Paul University	Coed	F. X. McCabe, LL. D.	Dennis A. Duggan, A. M.
Do	Lewis Institute	Coed	George N. Carman, A. M., director.	
Do	Loyola University	Men	John L. Mathery, S. J.	
Do	University of Chicago	Coed	Harry Pratt Judson, LL. D.	Charles H. Judd, LL. D.
Decatur	James Millikin University.	Coed	A. R. Taylor, LL. D.	John E. Rouse, Ph. D.
Eureka	Eureka College	Coed	H. O. Pritchard, LL.D.	
Evanston	Northwestern University.	Coed		Elmer E. Jones, Ph. D.
Ewing	Ewing College	Coed	Arthur E. Summers	
Galesburg	Knox College	Coed	Thomas McClelland, LL. D.	Wm. A. Raub, Ph. D.
Do	Lombard College	Coed	Joseph M. Tilden, A. M.	Luther J. Pollard, A. M.
Greenville	Greenville College	Coed	Eldon Grant Burritt, A. M.	N. L. Kingsley, A. M.
Jacksonville	Illinois College	Coed	Charles H. Rammelkamp, Ph. D.	
Do	Illinois Woman's College.	Women	Joseph R. Harker, Ph. D.	Amy M. Mothershead, B. S.
Knoxville	St. Mary's School	Women	C. W. Leffingwell, D. D., rector.	
Lake Forest	Lake Forest College	Coed	John S. Nollen, LL. D.	Henry W. Wright, Ph.D.
Lebanon	McKendree College	Coed	H. W. Hurt, LL. D.	
Lincoln	Lincoln College	Coed	James H. McMurray, Ph. D.	
Monmouth	Monmouth College	Coed	Thos. H. McMichael, D. D.	Milton M. Maynard, A. B.
Mount Carroll	Frances Shimer School	Women	Wm. P. McKee, A. M.	
Naperville	Northwestern College	Coed	Edward E. Rall, Ph.D.	
Peoria	Bradley Polytechnic Institute.	Coed	Theodore C. Burgess, Ph. D., director.	Albert F. Siepert, B. S.
Quincy	St. Francis Solanus College.	Men	Fortunatus Hausser, O. F. M.	
Rockford	Rockford College	Women	Julia H. Gulliver, LL. D.	Alice M. Krackowizer, B. S.
Rock Island	Augustana College	Coed	Gustav A. Andreen, Ph. D.	Conrad Bergendoff, A. M.
Upper Alton	Shurtleff College	Coed	George M. Potter, A.M.	
Urbana	University of Illinois	Coed	Edmund J. James, LL. D.	Wm. C. Bagley, Ph. D.
Wheaton	Wheaton College	Coed	Charles A. Blanchard, D. D.	Wm. T. Rice, A. M.

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X.—Colleges and Universities—Presidents and Heads of Department of Education—Continued.

Location.	College or university.	For men, for women, or coeducational.	Name of president.	Name of head of department or school of education.
INDIANA.				
Bloomington	Indiana University	Coed	William L. Bryan, LL. D.	Henry L. Smith, Ph. D.
Collegeville	St. Joseph's College	Men	H. W. Lear, C. PPS.	
Crawfordsville	Wabash College	Men	Geo. Lewes Mackintosh, LL. D.	George H. Tapy, A. M.
Earlham	Earlham College	Coed	Robt. L. Kelly, LL. D.	
Fort Wayne	Concordia College	Men	Martin Luecke	
Franklin	Franklin College	Coed	Elijah A. Hanley, D. D.	John L. Beyl, Ph. D.
Goshen	Goshen College	Coed	John E. Hartzler, B. D.	John J. Fisher, A. M.
Greencastle	De Pauw University	Coed	Geo. R. Grose, LL. D.	
Hanover	Hanover College	Coed	William A. Millis, LL. D.	
Indianapolis	Butler College	Coed	Thomas C. Howe, Ph. D.	Elijah Jordan, Ph. D.
Do	Indiana Central University.	Coed	Irby J. Good, A. M.	John A. Cummins, Ph.D.
La Fayette	Purdue University	Coed	Winthrop E. Stone, LL. D.	George L. Roberts, A. M.
Merom	Union Christian College	Coed	C. B. Hershey, D. D.	
Moores Hill	Moores Hill College	Coed	Andrew J. Bigney, Sc. D.	George H. Reibold, B. S.
Notre Dame	St. Mary's College and Academy.	Women	Mother M. Pauline	
Do	University of Notre Dame.	Men	John Cavanaugh, D.D.	
Oakland City	Oakland City College	Coed	Wm. P. Dearing	
St. Meinrad	St. Meinrad College	Men	Athanasius Schmitt, D. D.	
Terre Haute	Rose Polytechnic Institute.	Men	Carl L. Mees, Ph. D.	
Upland	Taylor University	Coed	Monroe Vayhinger, D. D.	I. B. Peavy, M. Pd.
Valparaiso	Valparaiso University	Coed	Henry B. Brown, A. M.	George W. Nest, Ph. D.
Vincennes	Vincennes University	Coed	William Halnon, A. M.	
IOWA.				
Ames	Iowa State College of Agriculture and Mechanic Arts.	Coed	Raymond A. Pearson, LL. D.	Guy M. Wilson, A. M.
Cedar Falls	Iowa State Teachers College.	Coed	Homer H. Seerley, LL. D.	G. W. Walters, M. S., acting.
Cedar Rapids	Coe College	Coed	John A. Marquis, LL. D.	Alexander C. Robbie, A. M.
Clinton	Wartburg College	Men	John Fritschel, A. M.	
Decorah	Luther College	Men	Christian K. Preus, A. B.	Oscar A. Tingelstad, A. M.
Des Moines	Des Moines College	Coed	John A. Earl, D. D.	
Do	Drake University	Coed	Hill M. Bell, LL. D.	Wm. F. Barr, A. M.
Do	Highland Park College	Coed	Geo. P. Magil, D. D.	Arthur E. Bennett, A. M.
Dubuque	Dubuque College	Men	Daniel M. Gorman, LL. D.	Arthur M. Clark, A. B.
Fairfield	Parsons College	Coed		John E. Winter, A. M.
Fayette	Upper Iowa University	Coed	Chauncey P. Colegrove, Sc. D.	
Grinnell	Grinnell College	Coed	John H. T. Main, LL. D.	L. D. Hartson, Ph. D.
Hopkinton	Lenox College	Coed	A. St. Clair Mackenzie, Litt. D.	Wm. Ferguson, Ph.D.
Indianola	Simpson College	Coed	James W. Campbell, Ph. D.	Samuel Weir, Ph. D.
Iowa City	State University of Iowa	Coed	Walter A. Jessup, Ph.D.	
Iowa Falls	Ellsworth College	Coed	Ido F. Meyer, A. M.	Harold C. Bingham, A. M.
Lamoni	Graceland College	Coed	George N. Briggs, A. B.	F. M. McDowell, A. M.
Mount Pleasant	Iowa Wesleyan College	Coed	Edwin A. Schell, D. D.	Elmer E. Lymer, A. M.
Mount Vernon	Cornell College	Coed	Charles W. Flint, LL. D.	John E. Stout, Ph. D.
Oskaloosa	Penn College	Coed	David M. Edwards, Ph. D.	Ella H. Stokes, Ph. D.
Pella	Central University of Iowa.	Coed	John W. Bailey, Ph.D.	Frank M. Phillips, A. M.

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X.—Colleges and Universities—Presidents and Heads of Department of Education—Continued.

Location.	College or university.	For men, for women, or coeducational.	Name of president.	Name of head of department or school of education.
IOWA—contd.				
Sioux City	Morningside College	Coed	Alfred E. Craig, D. D.	E. A. Brown, A. M.
Storm Lake	Buena Vista College	Coed	R. D. Echlin, D. D.	Nellie B. Drake, A. M.
Tabor	Tabor College	Coed	Nelson Wehrhan, Ph. B.	C. W. Shroeder, A. M.
Toledo	Leander Clark College	Coed	Marion R. Drury, D. D.	
University Park	Central Holiness University.	Coed	George A. McLaughlin, D. D.	
KANSAS.				
Atchison	Midland College	Coed	Rufus B. Peery, D. D.	Fred S. Sorrenson, A. M.
Do	St. Benedict's College	Men	Innocent Wolf, O. S. B., D. D.	
Baldwin City	Baker University	Coed	Wilbur N. Mason, D. D.	Lilian Scott, A. M.
Emporia	College of Emporia	Coed	Henry Coe Culbertson, LL. D.	Conrad Vandervelde, A. M.
Highland	Highland College	Coed	W. Gilbert James, Ph. D.	
Holton	Campbell College	Coed	Wm. C. T. Adams, LL. D.	
Kansas City	Kansas City University.	Coed	J. H. Lucas, LL. D., chancellor.	Wm. S. Reese, D. D.
Lawrence	University of Kansas	Coed	Frank Strong, LL. D.	F. J. Kelley, Ph. D.
Lindsborg	Bethany College	Coed	Ernst F. Pihlblad, D. D.	Anna A. Carlson.
McPherson	McPherson College	Coed	Daniel W. Kurtz, D. D.	
Manhattan	Kansas State Agricultural College.	Coed	Henry J. Waters, B. S. A.	Edwin L. Holton, A. B.
Ottawa	Ottawa University	Coed	Silas E. Price, D. D.	Forrest A. Kingsbury, A. M.
St. Marys	St. Mary's College	Men	Wm. J. Wallace, S. J.	
Salina	Kansas Wesleyan University.	Coed	John F. Harmon, D. D.	Albert H. King, A. M.
Sterling	Cooper College	Coed	Ross T. Campbell, D. D.	
Topeka	Washburn College	Coed	Parley P. Womer, D. D.	Samuel G. Hefelbower, Ph. D.
Wichita	Fairmount College	Coed	Walter H. Rollins, D. D.	W. G. Binnewies, A. M.
Do	Friends University	Coed	Edmund Stanley, A. M.	H. C. Fellows, Ph. D.
Winfield	Southwestern College	Coed	Frank E. Mossman, D. D.	O. B. Baldwin, A. M.
KENTUCKY.				
Berea	Berea College	Coed	Wm. G. Frost, D. D.	Cloyd N. McAllister, Ph. D.
Bowling Green	Ogden College	Men	Wm. M. Pearce, A. B.	
Danville	Kentucky College for Women.	Women	M. M. Allen, A. M.	
Do	Central University of Kentucky.	Men	Wm. A. Ganfield, D. D.	
Georgetown	Georgetown College	Coed	Maldon B. Adams, D. D.	A. L. Rhoton, A. M.
Hopkinsville	Bethel Female College	Women		
Lexington	Hamilton College for Women.	Women	E. W. McDiarmid, A. M.	
Do	Sayre College	Women	J. M. Spencer, D. D.	
Do	State University of Kentucky.	Coed	Henry S. Barker, LL. D.	J. T. C. Noe, A. M.
Do	Transylvania College	Coed	Richard H. Crossfield, LL. D.	Wm. C. Bower, A. M.
Louisville	University of Louisville.	Coed	John Patterson, LL. D., dean.	
Russellville	Bethel College	Men	Harry G. Brownell, M. E.	
Do	Logan Female College	Women	J. W. Repass, D. D.	
St. Mary	St. Mary's College	Men	Michael Jaglowicz, C. R.	
Winchester	Kentucky Wesleyan College.	Coed	J. L. Clark, LL. D.	

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X.—Colleges and Universities—Presidents and Heads of Department of Education—Continued.

Location.	College or university.	For men, for women, or coeducational.	Name of president.	Name of head of department or school of education.
LOUISIANA.				
Baton Rouge	Louisiana State University and Agricultural and Mechanical College.	Coed	Thomas D. Boyd, LL. D.	D. T. Powers, A. M.
Clinton	Silliman Collegiate Institute.	Women.	U. B. Currie	
Convent	Jefferson College	Men	R. H. Smith, S. M	
Mansfield	Mansfield Female College.	Women.	R. E. Bobbitt, B. S	
New Orleans	H. Sophie Newcomb Memorial College.	Women.	Brandt V. B. Dixon, LL. D.	John M. Fletcher, Ph. D.
Do	Loyola University	Men	Alphonsus E. Otis, S. J.	
Do	New Orleans College (colored).	Coed	Chas. M. Melden, D. D.	George C. Taylor, A. B.
Do	Tulane University of Louisiana.	Men	Robert Sharp, Ph. D	
MAINE.				
Brunswick	Bowdoin College	Men	Wm. De Witt Hyde, LL. D.	Austin H. MacCormick, A. B.
Lewiston	Bates College	Coed	George C. Chase, LL. D.	Robert Y. F. McDonald, Ph. D.
Orono	University of Maine	Coed	Robert J. Aley, LL. D.	Roy F. Richardson, Ph. D.
Van Buren	Van Buren College (St. Mary's).	Men	Matthew Thouvenin, S. M.	
Waterville	Colby College	Coed	Arthur J. Roberts, A. M.	
MARYLAND.				
Annapolis	St. John's College	Men	Thomas Fell, LL. D.	
Do	United States Naval Academy.	Men	Capt. Edward W. Eberle, superintendent.	
Baltimore	Goucher College	Women.	Wm. W. Guth, Ph. D.	
Do	Johns Hopkins University.	Coed	Frank J. Goodnow, LL. D.	Edward F. Buchner, Ph. D.
Do	Loyola College	Men	Wm. J. Ennis, S. J.	
Do	Morgan College (colored)	Coed	John O. Spencer, Ph. D.	Wm. Pickens, Litt. D.
Do	Mount St. Joseph's College.	Men	Brother Norbert, A. B.	
Do	Notre Dame College of Maryland.	Women.	Sister Mary Florentine	
Chestertown	Washington College	Coed	James W. Cain, LL. D.	Marten Ten Hoor, A. M.
College Park	Maryland State College of Agriculture.	Men	Harry J. Patterson, Sc. D.	J. E. Metzger, B. S.
Ellicott City	Rock Hill College	Men	Brother Dorotheus, A. B.	
Emmitsburg	Mount St. Mary's College.	Men	Bernard J. Bradley, LL. D.	
Frederick	Hood College	Women.	Joseph H. Apple, LL. D.	Benj. W. Daily, A. M.
Lutherville	Maryland College for Women.	Women.	Chas. W. Gallagher, D. D.	
Westminster	Western Maryland College.	Coed	Thomas H. Lewis, LL. D.	James Widdowson, A. M
MASSACHUSETTS.				
Amherst	Amherst College	Men	Alexander Meiklejohn, Ph. D.	
Do	Massachusetts Agricultural College.	Coed	Kenyon L. Butterfield, LL. D.	Wm. R. Hart, A. M.
Boston	Boston College	Men	Charles W. Lyons, S. J.	
Do	Boston University	Coed	Lemuel H. Murlin, D. D.	Arthur H. Wilde, Ph. D.
Do	Simmons College	Women.	Henry Lefavour, LL. D.	Sarah L. Arnold, A. M.
Cambridge	Harvard University	Men	Abbott Lawrence Lowell, LL. D.	Paul H. Hanus, LL. D.
Do	Massachusetts Institute of Technology.	Coed	Richard C. Maclaurin, LL. D.	

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X.—COLLEGES AND UNIVERSITIES—PRESIDENTS AND HEADS OF DEPARTMENT OF EDUCATION—Continued.

Location.	College or university.	For men, for women, or coeducational.	Name of president.	Name of head of department or school of education.
MASSACHUSETTS—continued.				
Cambridge	Radcliffe College	Women.	Le Baron R. Briggs, LL. D.	Henry W. Holmes, A. M.
Lowell	Lowell Textile School		Chas. H. Eames, B. S.	
Northampton	Smith College	Women.	Marion Le Roy Burton, LL. D.	Harvey G. Townsend, Ph. D.
Norton	Wheaton College	Women.	Samuel V. Cole, LL. D.	Walter O. McIntire, Ph. D.
South Hadley	Mount Holyoke College	Women.	Mary E. Woolley, LL. D.	Colin A. Scott, Ph. D.
Tufts College	Tufts College	Coed.	Hermon C. Bumpus, LL. D.	Karl Schmidt, Ph. D.
Wellesley	Wellesley College	Women.	Ellen F. Pendleton, LL. D.	Arthur O. Norton, A. M.
Williamstown	Williams College	Men.	Harry A. Garfield, LL. D.	
Worcester	Clark University	Men.	G. Stanley Hall, LL. D.	Wm. H. Burnham, Ph. D.
Do	Clark College	Men.	Edmund Clark Sanford, LL. D.	Ludwig R. Geissler, Ph. D.
Do	College of the Holy Cross.	Men.	Joseph N. Dinand, S. J.	James A. Mullen, S. J.
Do	Worcester Polytechnic Institute.	Men.	Ira N. Hollis, Sc. D.	
MICHIGAN.				
Adrian	Adrian College	Coed.	Aubrey F. Hess, Ph. D.	O. R. Stilson, A. M.
Albion	Albion College	Coed.	Samuel Dickie, LL. D.	Delos Fall, LL. D.
Alma	Alma College	Coed.	Harry Means Crooks, A. B.	George B. Randels, Ph. D.
Ann Arbor	University of Michigan	Coed.	Harry B. Hutchins, LL. D.	Allen S. Whitney, A. B.
Detroit	University of Detroit	Men.	Wm. T. Doran, S. J.	James McCabe, S. J.
East Lansing	Michigan Agricultural College.	Coed.	Frank S. Kedzie, Sc. D.	Walter H. French, M. S
Hillsdale	Hillsdale College	Coed.	Joseph W. Mauck, LL. D.	Hadley B. Larrabee, A. M.
Holland	Hope College	Coed.	Ame Vennema, D. D.	Frederick W. Walde, Ph. D.
Houghton	Michigan College of Mines	Men.	Fred W. McNair, Sc. D.	
Kalamazoo	Kalamazoo College	Coed.	Herbert L. Stetson, LL. D.	
Olivet	Olivet College	Coed.	Thomas F. Kane, Ph. D.	
MINNESOTA.				
Albert Lea	Albert Lea College	Women.	Gertrude S. Kingsland, A. M.	Julia B. Hensel, A. M.
Collegeville	St. John's University	Men.	Peter Engle, Ph. D.	Alexius Hoffmann.
Minneapolis	Augsburg Seminary	Men.	Georg Sverdrup, jr., M. A.	
Do	University of Minnesota.	Coed.	George E. Vincent, LL. D.	Lotus D. Coffman, Ph. D.
Northfield	Carleton College	Coed.	Donald J. Cowling, Ph. D.	John E. Boodin, Ph. D.
Do	St. Olaf College	Coed.	L. A. Vigness	Julius Boraas, M. L.
St. Paul	College of St. Catherine	Women.	Sister Antonia, A. M.	
Do	College of St. Thomas	Men.	Humphrey Moynihan, D. D.	
Do	Hamline University	Coed.	Samuel F. Kerfoot, D. D.	George S. Innis, Ph. D.
Do	Macalester College	Coed.	Thomas M. Hodgman, LL. D.	Andrew W. Anderson, A. M.
St. Peter	Gustavus Adolphus College.	Coed.	Oscar J. Johnson, B. D.	
Winona	College of St. Teresa	Women.	Sister M. Lea	Mary A. Mumford, A. M.
MISSISSIPPI.				
Agricultural College.	Mississippi Agricultural and Mechanical College.	Coed.	W. H. Smith	Hugh Critz, B. S.
Blue Mountain	Blue Mountain College	Women.	W. J. Lowrey, LL. D.	
Brookhaven	Whitworth Female College.	Women.	I. W. Cooper, D. D.	

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X.—Colleges and Universities—Presidents and Heads of Department of Education—Continued.

Location.	College or university.	For men, for women, or coeducational.	Name of president.	Name of head of department or school of education.
MISSISSIPPI—con.				
Clinton	Hillman College	Women.	W. T. Lowrey, LL. D.	
Do	Mississippi College	Men.	John W. Provine, LL. D.	Wm. H. Weathersby, A. M.
Columbus	Mississippi Industrial Institute and College.	Women.	Henry L. Whitfield, LL. D.	Anne L. Fant, A. M.
Grenada	Grenada College	Women.	J. R. Countiss, A. B.	
Holly Springs	Rust College (colored)	Coed.	George Evans, D. D.	
Jackson	Belhaven College	Women.	Sallie McLean, dean	Harriet L. Winn, A. M.
Do	Millsaps College	Coed.	Alexander F. Watkins, D. D.	
Meridian	Meridian College	Coed.	J. W. Beeson, LL. D.	Marvin S. Beeson, Ph. D.
Pontotoc	Chickasaw Female College.	Women.		
University	University of Mississippi.	Coed.	Joseph N. Powers, LL. D., chancellor.	John C. Fant, D. Pd.
MISSOURI.				
Albany	Palmer College	Coed.	E. A. Watkins, D. D.	Alma De Asbury, A. B.
Cameron	Missouri Wesleyan College.	Coed.	Harvey R. De Bra, D. D.	Lester M. Jones.
Canton	Christian University	Coed.	Earle M. Todd, D. D.	
Columbia	Christian College	Women.	Mrs. Luella W. St. Claire-Moss.	
Do	Stephens College	Women.	James M. Wood, A. M.	
Do	University of Missouri	Coed.	Albert Ross Hill, LL. D.	Werrett W. Charters, Ph. D.
Fayette	Central College	Coed.	Paul H. Linn, D. D.	Roy C. Holl, A. B.
Do	Howard-Payne College	Women.	Henry E. Stout, A. B.	
Fulton	Synodical College for Girls.	Women.	John James, A. B.	
Do	Westminster College	Men.	E. E. Reed, D. D.	
Glasgow	Pritchett College	Coed.	Uriel S. Hall, A. B.	Mildred Dahlene, A. B.
Lexington	Central Female College	Women.	Z. M. Williams, D. D.	Rebecca Corwin, Ph. D.
Liberty	William Jewell College	Men.	John P. Greene, LL. D.	W. O. Lewis, Ph. D.
Marshall	Missouri Valley College	Coed.	Wm. H. Black, LL. D.	John J. Dynes, A. M.
Mexico	Hardin College	Women.	John W. Million, A. M.	Elizabeth Cox, A. M.
Morrisville	Scarritt-Morrisville College.	Coed.	Arthur Bonner, Ph. D.	
Nevada	Cottey College	Women.	Mrs. V. A. C. Stockard.	
Parkville	Park College	Coed.	Frederick W. Hawley, D. D.	W. A. Cook, A. M.
St. Charles	Lindenwood College for Women.	Women.	John L. Roemer, D. D.	Lucinda de L. Templin, A. M.
St. Louis	Christian Brothers College.	Men.	Brother Lawrence Sixtus, F. S. A.	
Do	Forest Park College	Women.	Mrs. Anna Snead Cairns.	Harriet Stone, M. S.
Do	St. Louis University	Men.	Bernard J. Otting, S. J.	
Do	Washington University	Coed.	Frederic A. Hall, LL. D., acting chancellor.	Edgar J. Swift, Ph. D.
Springfield	Drury College	Coed.		J. A. Taylor, A. M.
Tarkio	Tarkio College	Coed.	Joseph A. Thompson, D. D.	
Warrenton	Central Wesleyan College.	Coed.	Otto E. Kriege, D. D.	Frank O. Spohrer, B. S.
MONTANA.[1]				
Bozeman	Montana College of Agriture and Mechanic Arts.	Coed.	J. M. Hamilton, M. S.	
Butte	Montana State School of Mines.	Coed.	Charles H. Bowman, M. S.	
Missoula	University of Montana	Coed.	Frederick C. Scheuck, acting.	Freeman Daughters, A. M.
NEBRASKA.				
Bellevue	Bellevue College	Coed.	David R. Kerr	
Bethany	Cotner University	Coed.	William Oeschger, LL. D., chancellor.	Mrs. A. D. Thomas.
College View	Union College	Coed.	Harry A. Morrison, A. M.	M. P. Robinson.

[1] Chancellor of the University of Montana, Edward C. Elliot, Ph. D.

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X.—Colleges and Universities—Presidents and Heads of Department of Education—Continued.

Location.	College or university.	For men, for women, or coeducational.	Name of president.	Name of head of department or school of education.
NEBRASKA—con.				
Crete	Doane College	Coed	Wm. Orville Allen, Ph. D.	A. G. Heyhoe, A. M.
Grand Island	Grand Island College	Coed	George W. Taft, D. D.	George Sutherland, D. D.
Hastings	Hastings College	Coed	R. B. Crone, Ph. B.	James B. Anderson, A. M.
Lincoln	University of Nebraska [1]	Coed	Samuel Avery, LL. D., chancellor.	Charles Fordyce, Ph. D.
Omaha	Creighton University	Men	F. X. McMenamy, S. J.	Francis B. Cassilly, S. J.
Do	University of Omaha	Coed	Daniel E. Jenkins, Ph. D.	Walter N. Halsey, A. M.
University Place	Nebraska Wesleyan University.	Coed	Clark A. Fulmer, LL. D., chancellor.	B. E. McProud, A. M.
York	York College	Coed	M. O. McLaughlin, D. D.	Guy Buswell, A. M.
NEVADA.				
Reno	State University of Nevada.	Coed	Archer W. Hendrick, A. M.	George T. James, Ph. D.
NEW HAMPSHIRE.				
Durham	New Hampshire College of Agriculture and Mechanic Arts.	Coed	Edward T. Fairchild, LL. D.	Charles L. Simmers, B. A.
Hanover	Dartmouth College	Men	Ernest M. Hopkins, LL. D.	James L. McConaughy, Ph. D.
Manchester	St. Anselm's College	Men	Ernest Helmstetter, D. D.	
NEW JERSEY.				
Convent Station	College of St. Elizabeth.	Women.	Sister Mary Pauline...	
Hoboken	Stevens Institute of Technology.	Men	Alexander C. Humphreys, LL. D.	
Jersey City	St. Peter's College	Men	James F. McDermott, S. J.	
Kenilworth	Upsala College	Coed	Peter Froeberg, B. D.	
New Brunswick	Rutgers College	Men	Wm. H. S. Demarest, LL. D.	Charles H. Elliott, Ph. D.
Princeton	Princeton University	Men	John Grier Hibben, LL. D.	
South Orange	Seton Hall College	Men	Jas. F. Mooney, LL. D.	
NEW MEXICO.				
Albuquerque	University of New Mexico.	Coed	David R. Boyd, Ph. D.	Charles E. Hodgin, B. Pd.
Socorro	New Mexico School of Mines.	Coed	Fayette A. Jones, LL. D.	
State College	New Mexico College of Agriculture and Mechanic Arts.	Coed	George E. Ladd	
NEW YORK.				
Albany	New York State College for Teachers.	Coed	A. R. Brubacher, Ph. D.	Leonard A. Blue, Ph. D.
Alfred	Alfred University	Coed	Boothe C. Davis, LL. D.	Ford S. Clarke, Ph. B.
Annandale	St. Stephen's College	Men	Wm. C. Rodgers, D. D.	
Aurora	Wells College	Women.	Kerr D. Macmillan, S. T. D.	
Brooklyn	Adelphi College	Coed	Frank D. Blodgett, A. M.	Ernest N. Henderson, Ph. D.
Do	College of St. Francis Xavier.	Men	Joseph H. Rockwell, S. J.	
Do	Polytechnic Institute of Brooklyn.	Men	Fred. W. Atkinson, Ph. D.	
Do	St. Francis College	Men	Brother David, O. S. F.	
Do	St. John's College	Men	John W. Moore, LL. D.	
Buffalo	Canisius College	Men	Geo. J. Krim, S. J.	
Canton	St. Lawrence University.	Coed		Charles M. Rebert, A. M.
Clinton	Hamilton College	Men	M. W. Stryker, LL. D.	William H. Squires, Ph. D.
Elmira	Elmira College	Women.	John B. Shaw, LL. D.	John R. Tuttle, Ph. D.
Geneva	Hobart College	Coed	Lyman P. Powell, A. B.	F. P. Boswell.
Hamilton	Colgate University	Men	Elmer B. Bryan, LL. D.	Melbourne S. Read, Ph. D.

[1] Graduate School of Education, G. W. A. Luckey, Ph. D.

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X.—Colleges and Universities—Presidents and Heads of Department of Education—Continued.

Location.	College or university.	For men, for women, or coeducational.	Name of president.	Name of head of department or school of education.
NEW YORK—con.				
Ithaca	Cornell University	Coed	Jacob G. Schurman, LL. D.	Robert M. Ogden, Ph. D.
New Rochelle	College of New Rochelle	Women	Michael C. O'Farrell, D. D.	M. M. Xavier, A. M.
New York	Barnard College	Women	Virginia C. Gildersleeve, Ph. D., dean.	
Do	College of the City of New York.	Men	Sidney E. Mezes, LL. D.	Stephen P. Duggan, Ph. D.
Do	Columbia University	Coed	Nicholas M. Butler, LL. D.	(1)
Do	Fordham University	Men	Jos. A. Mulry, Ph. D.	
Do	Hunter College of the City of New York.	Women	George S. Davis, LL.D	James M. Kieran, LL.D.
Do	Manhattan College	Men	Brother Edward, A. B.	Brother Chrysostom, Ph. D.
Do	New York University	Coed	Elmer Ellsworth Brown, LL.D., chancellor.	Thomas M. Balliet, Ph. D.
Do	Teachers College	Coed	James E. Russell, LL. D., dean.	
Niagara University	Niagara University	Men	Michael A. Dremnan, A. M.	
Potsdam	Clarkson College of Technology.	Men	John P. Brooks, Sc. D., director.	
Poughkeepsie	Vassar College	Women	Henry N. MacCracken, LL. D.	
Rochester	University of Rochester	Coed	Rush Rhees, LL. D.	George M. Forbes, LL.D.
St. Bonaventure	St. Bonaventure's College.	Men	Alexander M. Hickey, O. F. M.	
Schenectady	Union University	Men	Charles A. Richmond, LL. D.	
Syracuse	New York State College of Forestry (at Syracuse University).	Men	Hugh P. Baker, M. F., dean.	
Do	Syracuse University	Coed	James R. Day, LL. D., chancellor.	J. Richard Street, Ph. D.
Troy	Rensselaer Polytechnic Institute.	Men	Palmer C. Ricketts, LL. D.	
West Point	United States Military Academy.	Men	Col. John Biddle, supt.	
NORTH CAROLINA.				
Belmont	Belmont Abbey College	Men	Leo Haid, D. D.	
Chapel Hill	University of North Carolina.	Coed	Edward K. Graham, LL. D.	Marcus C. S. Noble, Ph. D.
Charlotte	Biddle University (colored).	Men	H. L. McCrorey, D. D.	
Do	Queens College	Women	John L. Caldwell, D. D.	
Davidson	Davidson College	Men	Wm. J. Martin, Ph. D.	Archibald Currie, A. M.
Durham	Trinity College	Coed	Wm. P. Few, LL. D.	Eugene C. Brooks, A. B.
Elon College	Elon College	Coed	Wm. A. Harper, LL. D.	W. C. Wicker, Litt. D.
Greensboro	Greensboro College for Women.	Women	S. B. Turrentine, D. D.	David F. Nicholson, A. M.
Guilford College	Guilford College	Coed	Thomas Newlin, LL. D.	
Hickory	Lenoir College	Coed	R. L. Fritz, D. D.	S. P. Schneider, A. M.
Raleigh	Meredith College	Women	Charles E. Brewer, Ph. D.	Mary Shannon Smith, A. M.
Do	Peace Institute	Women	George J. Ramsey, LL. D.	
Do	St. Mary's School	Women	George W. Lay, D. C. L.	
Do	Shaw University (colored).	Coed	Chas. F. Meserve, LL. D.	Wm. S. Turner, A. M.
Red Springs	Flora McDonald College	Women	C. G. Vardell, D. D.	Alice Strong, A. M.
Salisbury	Livingstone College (colored).	Coed	William H. Goler, D. D.	W. H. Hannum, A. M.
Wake Forest	Wake Forest College	Men	Wm. L. Poteat, LL. D.	J. H. Highsmith.
Weaverville	Weaver College	Coed	J. R. Walker, A. M.	
West Raleigh	North Carolina College of Agriculture and Mechanic Arts.	Men	W. C. Riddick, C. E.	Lawrence E. Hinkle, A. B.
Wilson	Atlantic Christian College.	Coed	Raymond A. Smith, A. M.	
Winston-Salem	Salem Academy and College.	Women	Howard E. Rondthaler, D. D.	Edwin J. Heath, B. D.

[1] See Teachers College.

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X.—Colleges and Universities—Presidents and Heads of Department of Education—Continued.

Location.	College or university.	For men, for women, or coeducational.	Name of president.	Name of head of department or school of education.
NORTH DAKOTA.				
Agricultural College.	North Dakota Agricultural College.	Coed....	Edwin F. Ladd, LL. D.	Arland D. Weeks, A. M.
Fargo	Fargo College	Coed....	John W. Hansel	Charles A. Mohr, Ph. D.
Jamestown	Jamestown College	Coed....	Barend H. Kroese, D. D.	Francis B. Taylor, Ph. D.
University	University of North Dakota.	Coed....	Frank L. McVey, LL. D.	Joseph Kennedy, A. M.
Do	Wesley College	Coed....	Edward P. Robertson, D. D.	
OHIO.				
Ada	Ohio Northern University.	Coed....	Albert E. Smith, D. D.	John Davison, D. Ped.
Akron	Municipal University of Akron.	Coed....	Parke R. Kolbe, Ph. D.	
Alliance	Mount Union College	Coed....	Wm. H. McMaster, D. D.	John B. Bowman, A. M.
Ashland	Ashland College	Coed....	Wm. D. Furry, Ph. D.	Edward Byers, A. M.
Athens	Ohio University	Coed....	Alston Ellis, LL. D...	John J. Richeson, D. Ped.
Berea	Baldwin-Wallace College.	Coed....	Arthur L. Breslich, D. D.	Fletcher D. Ward, M. S.
Bluffton	Bluffton College	Coed....	Samuel K. Mosiman, Ph. D.	Harry G. Good, Ph. D.
Cedarville	Cedarville College	Coed....	Wilbert R. McChesney, D. D.	Stephen C. Wright, A. B.
Cincinnati	St. Xavier College	Men.....	Francis Heiermann, S. J.	
Do	University of Cincinnati.	Coed....	Chas. W. Dabney, LL.D.	Wm. P Burris, L. H. D
Cleveland	Case School of Applied Science.	Men.....	Charles S. Howe, Ph.D.	
Do	St. Ignatius College	Men.....	Wm. B. Sommerhouser, S. J.	
Do	Western Reserve University.	Coed....	Charles F. Thwing, LL. D.	
Columbus	Capital University	Men.....	Otto Mees, A. M	
Do	Ohio State University	Coed....	Wm. O. Thompson, LL. D.	George W. Knight, Ph.D.
Dayton	St. Mary College	Men.....	Bernard P. O'Reilly, D. D.	
Defiance	Defiance College	Coed....	Peter W. McReynolds, D. D.	E. L. Lawson, A. M.
Delaware	Ohio Wesleyan University.	Coed....	Herbert Welch, LL.D.	Arthur R. Mead, A. M.
Findlay	Findlay College	Coed....	Wm. H. Guyer, D. D..	H. S. Brinser, M. Pd.
Gambier	Kenyon College	Men.....	Wm. F. Petree, L.H.D.	
Granville	Denison University	Coed....	Clark W. Chamberlain, Ph. D.	T. A. Lewis, Ph. D.
Hiram	Hiram College	Coed....	Miner Lee Bates, LL. D.	Thomas B. Ford, A. M.
Lebanon	Lebanon University	Coed....	H. B. Cunningham, A. M.	Mark B. Whitaker, A. B.
Marietta	Marietta College	Coed....	George W. Hinman, Ph. D.	Jesse V. McMillan, A. M.
New Athens	Franklin College	Coed....	E. M. Baxter, LL. D..	
New Concord	Muskingum College	Coed....	J. K. Montgomery, D. D.	John W. Good, Ph. D.
Oberlin	Oberlin College	Coed....	Henry C. King, LL. D.	Edward A. Miller, Ph. D.
Oxford	Miami University	Coed....	Raymond M. Hughes, M. S.	H. G. Minnich.
Do	Oxford College for Women.	Women.	Jane Sherzer, Ph. D...	Margaret Daniels, Ph. B.
Do	Western College for Women.	Women.	W. W. Boyd, Ph. D...	C. C. McCracken, Ph. D.
Painesville	Lake Erie College	Women.	Vivian Blanche Small, LL. D.	Clara Hitchcock, Ph. D.
Rio Grande	Rio Grande College	Coed....	Simeon H. Bing, M. S.	
Springfield	Wittenberg College	Coed....	Charles G. Heckert, D. D.	T. Bruce Birch, Ph. D.
Tiffin	Heidelberg University	Coed....	Charles E. Miller, LL. D.	E. I. F. Williams, A. B.
Toledo	St. John's University	Men.....	John A. Weiand, S. J..	
Do	Toledo University	Coed....	A. Monroe Stowe, Ph. D.	A. W. Trettien, Ph. D.
Westerville	Otterbein University	Coed....	Walter G. Clippinger, D. D.	Edmund A. Jones, Ph.D.

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X.—Colleges and Universities—Presidents and Heads of Department of Education—Continued.

Location.	College or university.	For men, for women, or coeducational.	Name of president.	Name of head of department or school of education.
OHIO—continued.				
Wilberforce	Wilberforce University (colored).	Coed	Wm. S. Scarborough, LL. D.	
Wilmington	Wilmington College	Coed	J. Edwin Jay, A. M.	
Wooster	College of Wooster	Coed	J. Campbell White, LL. D.	Martin Remp, A. M.
Yellowsprings	Antioch College	Coed	S. D. Fess, LL. D.	Stephen F. Weston, Ph. D.
OKLAHOMA.				
Chickasha	Oklahoma College for Women.	Women.	G. W. Austin, B. S.	
Guthrie	Methodist University of Oklahoma.	Coed	Edward Hislop, D. D.	Edwin G. Green, A. B.
Kingfisher	Kingfisher College	Coed	George B. Hatfield, S. T. M.	Frank Dickinson, A. M.
Norman	University of Oklahoma.	Coed	Stratton D. Brooks, LL. D.	W. W. Phelan, Ph. D.
Stillwater	Oklahoma Agricultural and Mechanical College.	Coed	J. W. Cantwell, A. M.	John H. Bowers, Ph. D.
Tulsa	Henry Kendall College	Coed	Charles Evans, LL. D.	Moses E. Wood, A. M.
Wilburton	Oklahoma School of Mines and Metallurgy.	Men	Lynn Glover	
OREGON.				
Albany	Albany College	Coed	Wallace H. Lee, LL. D.	Raymond P. Hawes, Ph. D.
Corvallis	Oregon Agricultural College.	Coed	William J. Kerr, Sc. D.	Edwin D. Ressler, A. M.
Eugene	University of Oregon	Coed	Prince L. Campbell, LL. D.	Henry D. Sheldon, Ph. D.
Forest Grove	Pacific University	Coed	Charles J. Bushnell, Ph. D.	Henry L. Bates, A. M.
McMinnville	McMinnville College	Coed	Leonard W. Riley, D. D.	C. P. Coe, A. B.
Newberg	Pacific College	Coed	Levi T. Pennington, A. B.	R. W. Lewis, Ph. B.
Portland	Reed College	Coed	Wm. T. Foster, LL. D.	
Salem	Willamette University	Coed	Carl G. Doney, LL. D.	Charles L. Sherman, Ph. D.
PENNSYLVANIA.				
Allentown	Allentown College for Women.	Women.	Wm. F. Curtis, Litt. D.	
Do	Muhlenberg College	Men	John W. A. Haas, D. D.	George T. Ettinger, Ph. D.
Annville	Lebanon Valley College.	Coed	George D. Gossard, D. D.	S. O. Grimm, A. M.
Beatty	St. Vincent College	Men	Leander Schnerr, O. S. B.	
Beaver	Beaver College	Women.	LeRoy Weller, Litt. D.	C. Mace Thomas, Ph. D.
Beaver Falls	Geneva College	Coed	R. H. Martin, B. D.	Harry H. Wylie, A. M.
Bethlehem	Moravian College	Men	Aug. Schultze, L. H. D.	
Do	Moravian Seminary and College for Women.	Women.	John H. Clewell, Ph. D.	
Bryn Mawr	Bryn Mawr College	Women.	Miss M. Carey Thomas, LL. D.	Matilde Castro, Ph. D.
Carlisle	Dickinson College	Coed	James H. Morgan, LL. D.	
Chambersburg	Wilson College	Women.	Ethelbert D. Warfield, LL. D.	Elsie Murray, Ph. D.
Chester	Pennsylvania Military College.	Men	Chas E. Hyatt, LL. D.	
Collegeville	Ursinus College	Coed	George L. Omwake, Pd. D.	
Easton	Lafayette College	Men	John H. MacCracken, LL. D.	
Gettysburg	Pennsylvania College	Coed	William A. Granville, LL. D.	C. F. Sanders, D. D.
Greenville	Thiel College	Coed	Henry W. Elson, Ph. D.	Constantine F. Malmburg, Ph. D.
Grove City	Grove City College	Coed	Weir C. Ketler, A. M.	Luther B. Henderson, A. M.
Haverford	Haverford College	Men	Isaac Sharpless, LL. D.	

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X.—Colleges and Universities—Presidents and Heads of Department of Education—Continued.

Location.	College or university.	For men, for women, or coeducational.	Name of president.	Name of head of department or school of education.
PENNSYLVANIA—continued.				
Huntingdon	Juniata College	Coed.	I. Harvey Brumbaugh, A. M.	C. C. Ellis, Ph. D.
Lancaster	Franklin and Marshall College.	Men	Henry H. Apple, LL. D.	H. M. J. Klein, Ph. D.
Lewisburg	Bucknell University	Coed.	John H. Harris, LL. D.	Llewellyn Phillips, D. D.
Lincoln University.	Lincoln University (colored).	Men	John B. Rendall, D. D.	George Johnson, Ph. D.
Meadville	Allegheny College	Coed.	Wm. H. Crawford, LL. D.	Frederick G. Henke, Ph. D.
Mechanicsburg	Irving Female College	Women.	M. H. Reaser, Ph. D.	N. L. Euwer, A. M.
Myerstown	Albright College	Coed.	L. Clarence Hunt, D. D.	C. A. Bowman, Ph. D.
New Wilmington	Westminster College	Coed.	W. C. Wallace, D. D.	John A. Shott, A. M.
Philadelphia	Drexel Institute	Coed.	Hollis Godfrey, Sc. D.	
Do	Dropsie College	Coed.	Cyrus Adler, Ph. D.	
Do	La Salle College	Men	Brother D. Edward, LL. D.	
Do	St. Joseph's College	Men	J. Charles Davey, S. J.	
Do	Temple University	Coed.	Russell H. Conwell, LL. D.	George F. Miller, Ph. D.
Do	University of Pennsylvania.	Coed.	Edgar Fahs Smith, LL. D., provost.	Frank P. Graves, LL. D.
Pittsburgh	Carnegie Institute of Technology.	Coed.	Arthur A. Hamerschlag, LL. D.	
Do	Duquesne University of the Holy Ghost.	Men	Martin A. Hehir, LL. D.	
Do	Pennsylvania College for Women.	Women.	John C. Acheson, LL. D.	George B. Lawson, Ph. D.
Do	University of Pittsburgh.	Coed.	S. B. McCormick, LL. D., chancellor.	Will G. Chambers, A. M.
Selinsgrove	Susquehanna University	Coed.	Charles T. Aikens, D. D.	
South Bethlehem	Lehigh University	Men	Henry S. Drinker, LL. D.	Percy Hughes, Ph. D.
State College	Pennsylvania State College.	Coed.	Edwin E. Sparks, LL. D.	Louis W. Rapeer, Ph. D.
Swarthmore	Swarthmore College	Coed.	Joseph Swain, LL. D.	Bird T. Baldwin, Ph. D.
Villanova	Villanova College	Men	Edward G. Dohan, LL. D.	Chas. P. O'Neill, S. T. L.
Washington	Washington and Jefferson College.	Coed.	Frederick W. Hinitt, LL. D.	Edward M. Weyer, Ph. D.
Waynesburg	Waynesburg College	Coed.	Herbert P. Houghton, Ph. D.	Lorey C. Day, A. M.
PORTO RICO.				
San Juan	University of Porto Rico	Coed.	Paul G. Miller, Ph. D.	Susan D. Huntington, A. M.
RHODE ISLAND.				
Kingston	Rhode Island State College.	Coed.	Howard Edwards, LL. D.	Lester W. Boardman, A. M.
Providence	Brown University	Coed.	W. H. P. Faunce, LL. D.	Walter B. Jacobs, A. M.
SOUTH CAROLINA.				
Charleston	College of Charleston	Men	Harrison Randolph, LL. D.	
Do	The Citadel, the Military College of South Carolina.	Men	Col. O. J. Bond, A. M., superintendent.	
Clemson College	Clemson Agricultural College.	Men	Walter M. Riggs, LL. D.	
Clinton	Presbyterian College of South Carolina.	Coed.	Davison McDowell Douglas, D. D.	Daniel J. Brimm, D. D.
College Place	Columbia College	Women.	G. T. Pugh, Ph. D.	Sarah B. Tucker, A. M.
Do	Benedict College (colored)	Coed.	B. W. Valentine, A. M.	Mrs. S. H. Chester.
Do	Chicora College for Women.	Women.	S. C. Byrd, D. D.	Mary E. Armstrong, A. B.
Do	University of South Carolina.	Coed.	Wm. S. Currell, LL. D.	Patterson Wardlaw, LL. D.
Due West	Erskine College	Coed.	James Strong Moffatt, D. D.	
Do	Woman's College of Due West.	Women.	Richard L. Robinson.	

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X.—Colleges and Universities—Presidents and Heads of Department of Education—Continued.

Location.	College or university.	For men, for women, or coeducational.	Name of president.	Name of head of department or school of education.
SOUTH CAROLINA—contd.				
Greenville	Furman University	Men	Edwin McNeill Poteat, LL. D.	Orlin O. Fletcher, D. D.
Do	Greenville Female College.	Women.	David M. Ramsey, D. D.	
Greenwood	Lander College	Women.	John O. Willson, D. D.	Elizabeth Alexander, A. B.
Hartsville	Coker College for Women	Women.	Howard Lee Jones, D. D.	
Newberry	Newberry College	Coed	John H. Harms, D. D.	S. J. Derrick, A. M.
Spartanburg	Converse College	Women.	Robert P. Pell, Litt. D.	M. A. Martin, Ph. D.
Do	Wofford College	Men	Henry N. Snyder, LL. D.	Arthur G. Rembert, LL. D.
SOUTH DAKOTA.				
Brookings	South Dakota State College of Agriculture and Mechanic Arts.	Coed	Ellwood C. Perisho, LL. D.	Charles H. Brady, A. M.
Huron	Huron College	Coed	Harry M. Gage, LL. D.	Walter L. Harris, A. M.
Mitchell	Dakota Wesleyan University.	Coed	C. V. Gilliland, D. D., acting.	H. P. Patterson, Ph. D.
Rapid City	State School of Mines	Coed	Cleophas C. O'Hara, Ph. D.	
Sioux Falls	Sioux Falls College	Coed	Rolvix Harlin, Ph. D.	A. W. Fauquet, A. M.
Vermillion	University of South Dakota.	Coed	Robert L. Slagel, Ph. D.	W. F. Jones, Ph. D.
Yankton	Yankton College	Coed	Henry K. Warren, LL. D.	Wm. J. McMurty, LL. D.
TENNESSEE.				
Bristol	King College	Men	Tilden Scherer, D. D.	F. W. De Friece, A. M.
Chattanooga	University of Chattanooga.	Coed	Frederick W. Hixon, D. D.	W. W. Hooper, D. D.
Clarksville	Southwestern Presbyterian University.	Men	John R. Dobyns, LL. D.	
Greenville	Tusculum College	Coed	Chas. O. Gray, D. D.	Edward A. Hirschman, A. B.
Harrogate	Lincoln Memorial University.	Coed	George A. Hubbell, Ph. D.	Jesse Lewis, A. B.
Jackson	Memphis Conference Female Institute.	Women.	Henry G. Hawkins, A. B.	
Do	Union University	Coed	G. M. Savage, LL. D.	A. T. Barrett, LL. D.
Jefferson City	Carson and Newman College.	Coed	Jesse McGarity Burnett, D. D.	Wm. L. Gentry, B. S.
Knoxville	Knoxville College (colored).	Coed	R. W. McGranahan, D. D.	
Do	University of Tennessee	Coed	Brown Ayres, LL. D.	John A. Thackston, Ph.D.
Lebanon	Cumberland University	Coed	Homer A. Hill, A. M., acting.	
McKenzie	Bethel College	Coed	N. J. Finney, A. M.	
Maryville	Maryville College	Coed	Samuel T. Wilson, D. D.	Horace L. Ellis, A. M.
Memphis	Christian Brothers College.	Men	Brother Elzear, F. S. C.	
Milligan	Milligan College	Coed	Josephus Hopwood, A. M.	Willis B. Boyd, A. M.
Murfreesboro	Tennessee College	Women.	Geo. J. Burnett, A. M.	
Nashville	Boscobel College	Women.	Chas. E. Sullivan, D. D.	
Do	Buford College	Women.	Mrs. Elbridge G. Buford, A. M.	
Do	Fisk University (colored).	Coed	F. A. McKenzie	
Do	George Peabody College for Teachers.	Coed	Bruce R. Payne, Ph. D.	
Do	Vanderbilt University	Coed	James H. Kirkland, LL. D., chancellor.	
Sewanee	University of the South	Men	Albion W. Knight, D. D., vice chancellor.	
Spencer	Burritt College	Coed	H. B. Walker	
Washington College.	Washington College	Coed	James T. Cooter, D. D.	Wm. J. Wilkinson, B. L.

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X.—Colleges and Universities—Presidents and Heads of Department of Education—Continued.

Location.	College or university.	For men, for women, or coeducational.	Name of president.	Name of head of department or school of education.
TEXAS.				
Abilene	Simmons College	Coed.	Jefferson D. Sandefer, Ph. B.	Oscar H. Cooper, LL. D.
Austin	University of Texas	Coed.	Robert E. Vinson, LL. D.	Wm. S. Sutton, LL. D.
Belton	Baylor Female College	Women.	John C. Hardy, LL. D.	Payton Jacobs, A. M.
Brownwood	Daniel Baker College	Coed.	T. P. Jenkin, LL. D.	
Do	Howard Payne College	Coed.	A. E. Baten, D. D.	Cora A. Goodwin, A. M.
College Station	Agricultural and Mechanical College of Texas.	Men.	Wm. B. Bizzell, D. C. L.	Martin L. Hayes, A. M.
Dallas	Southern Methodist University.	Coed.	Robert S. Hyer, LL.D.	Paul W. Terry, A. M.
Denton	College of Industrial Arts	Women.	F. M. Bralley	M. L. Williams, A. M.
Fort Worth	Texas Woman's College	Women.	H. A. Boaz, D. D.	Elzy D. Jennings, A. M.
Do	Texas Christian University.	Coed.	W. B. Parks, Ph. D., acting.	W. H. Batson, Ph. D.
Georgetown	Southwestern University	Coed.	Charles M. Bishop, D. D.	Claude A. Nichols, Ph. D.
Houston	Rice Institute	Coed.	Edgar O. Lovett, LL. D.	R. A. Tsanoff, Ph. D.
San Antonio	St. Louis College	Men.	A. Frische, S. M.	
Sherman	Austin College	Men.	Thomas S. Clyce, LL. D.	J. J. Delaney, A. B.
Do	North Texas Female College.	Women.	Mrs. Lucy A. Kidd-Key.	
Tehuacana	Westminster College	Coed.	John C. Williams, D. D	
Waco	Baylor University	Coed.	Samuel P. Brooks, LL. D.	A. J. Hall, Ph. D.
Waxahachie	Trinity University	Coed.	Samuel Lee Hornbeak, LL. D.	W. M. Liggett, A. M.
UTAH.				
Logan	Agricultural College of Utah.	Coed.	E. G. Peterson, Ph. D.	
Salt Lake City	University of Utah	Coed.	John A. Widtsoe, Ph. D.	Milton Bennion, A. M.
VERMONT.				
Burlington	University of Vermont and State Agricultural College.	Coed.	Guy P. Benton, LL. D.	James F. Messenger, Ph. D.
Middlebury	Middlebury College	Coed.	John Martin Thomas, LL. D.	Edward D. Collins, Ph. D.
Northfield	Norwich University	Men.	Col. Ira L. Reeves, Litt. D.	
Winooski	St. Michael's College	Men.	E. M. Salmon, D. D.	
VIRGINIA.				
Abingdon	Martha Washington College.	Women.	Samuel D. Long, A. B.	Evelyn Lee, A. B.
Do	Stonewall Jackson College.	Women.	J. L. MacMillan	Mary M. Davis.
Ashland	Randolph-Macon College.	Men.	Robert E. Blackwell, LL. D.	
Blacksburg	Virginia Agricultural and Mechanical College and Polytechnic Institute.	Men.	Joseph D. Eggleston, A. M.	
Bridgewater	Bridgewater College	Coed.	John S. Flory, Ph. D.	Earl S. Neal, A. M.
Bristol	Virginia Intermont College.	Women.	H. G. Noffsinger, M. A.	
Do	Sullins College	Women.	John C. Orr	
Charlottesville	University of Virginia	Men.	Edwin A. Alderman, LL. D.	Chas. G. Maphis, acting.
Danville	Roanoke Institute	Women.	W. W. Rivers, A. M.	
Emory	Emory and Henry College.	Men.	Chas. C. Weaver, Ph. D.	
Hampden-Sidney.	Hampden-Sidney College.	Men.	Henry T. Graham, D. D.	
Hollins	Hollins College	Women.	Matty L. Cocke	
Lexington	Virginia Military Institute.	Men.	Edward W. Nichols, supt.	
Do	Washington and Lee University.	Men.	Henry Louis Smith, LL. D.	

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X.—Colleges and University—President and Heads of Department of Education—Continued.

Location.	College or university.	For men, for women, or coeducational.	Name of president.	Name of head of department or school of education.
VIRGINIA—contd.				
Lynchburg	Randolph-Macon Woman's College.	Women.	Wm. A. Webb, Litt. D.	E. B. Crooks, Ph. D.
Do	Virginia Christian College.	Coed.	J. T. T. Hundley, A. B.	
Manassas	Eastern College	Coed.	Hervin U. Roop, LL. D.	
Richmond	Richmond College	Coed.	F. W. Boatwright, LL. D.	D. B. Bryan, Ph. D.
Do	Virginia Union University (colored).	Men.	George R. Hovey, D. D.	M. P. Robinson, A. B.
Roanoke	Virginia College	Women.	Mattie P. Harris	
Salem	Roanoke College	Men.	John A. Morehead, D. D.	F. V. N. Painter, Litt. D.
Do	Elizabeth College	Women.	John C. Peery, A. M.	Irene B. Palmer.
Sweet Briar	Sweet Briar College	Women.	Emilie W. McVea, Litt. D.	
Williamsburg	College of William and Mary.	Men.	Lyon G. Tyler, LL. D.	H. E. Bennett, A. B.
WASHINGTON.				
Pullman	State College of Washington.	Coed.	Ernest O. Holland, Ph. D.	Alfred A. Cleveland, Ph. D.
Seattle	University of Washington.	Coed.	Henry Suzzallo, Ph. D.	Frederick E. Bolton, Ph. D.
Spokane	Gonzaga University	Men.	James M. Brogan, S. J.	
Do	Spokane College	Coed.	A. O. Ulvestad, A. B.	Wm. Hohberger.
Do	Whitworth College	Coed.	Donald D. McKay, D. D.	Charles A. Barry, A. M.
Tacoma	College of Puget Sound	Coed.	Edward H. Todd, D. D.	Ira A. Morton, A. M.
Walla Walla	Whitman College	Coed.	Stephen B. L. Penrose, D. D.	Thomas R. Day, D. D.
WEST VIRGINIA.				
Bethany	Bethany College	Coed.	Thomas E. Cramblet, LL. D.	J. W. Sprowls, A. B.
Buckhannon	West Virginia Wesleyan College.	Coed.	Wallace B. Fleming, D. D.	B. F. Haught, A. M.
Elkins	Davis and Elkins College.	Coed.	James E. Allen, A. B.	
Morgantown	West Virginia University.	Coed.	Frank B. Trotter, LL. D.	J. N. Deahl, Ph. D.
WISCONSIN.				
Appleton	Lawrence College	Coed.	Samuel Plantz, LL. D.	Lester B. Rogers, Ph. D.
Beloit	Beloit College	Coed.	Edward D. Eaton, LL. D.	Almon W. Burr, A. M.
Madison	University of Wisconsin.	Coed.	Charles R. Van Hise, LL. D.	V. A. C. Henmon, Ph. D.
Milton	Milton College	Coed.	Wm. C. Daland, D. D.	
Milwaukee	Concordia College	Men.	M. J. F. Albrecht	
Do	Marquette University	Men.	Herbert C. Noonan, S. J.	
Do	Milwaukee-Downer College.	Women.	Ellen C. Sabin, LL. D.	Mina Kerr, Ph. D.
Plymouth	Mission House	Coed.	E. A. Hofer, D. D.	
Prairie du Chien	Campion College	Men.	George R. Kister, S. J.	
Ripon	Ripon College	Coed.	Silas Evans, LL. D.	Wm. J. Mutch, Ph. D.
Sinsinawa	St. Clara College and Academy.	Women.	Mother Mary Samuel	Sister M. Thomas Aquinas, Ph. D.
Watertown	Northwestern College	Men.	A. F. Ernst	
Waukesha	Carroll College	Coed.	W. O. Carrier, D. D.	S. B. Ray, L. H. D.
WYOMING.				
Laramie	University of Wyoming.	Coed.	Clyde A. Duniway, LL. D.	J. O. Creager, A. M.

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XI.—Officers of Boards of Trustees of Universities and Colleges.

Location.	University or college.	President of board of trustees.	Secretary of board of trustees.
ALABAMA.			
Athens	Athens Female College	W. T. Sanders	R. N. Cartwright.
Auburn	Alabama Polytechnic Institute.	Gov. Charles Henderson.	R. W. Burton.
Birmingham	Birmingham College	R. S. Munger	E. M. Glenn.
Do	Howard College	James B. Ellis	P. G. Ratcliff.
Greensboro	Southern University	J. S. Frazer	E. A. Donnelly.
Marion	Judson College	Ernest Lamar	T. T. Daughdrill.
Montgomery	Women's College of Alabama	M. W. Swartz, Ph. D	J. M. Donnelly, D. D.
St. Bernard	St. Bernard College	Bernard Menges, O.S.B	Charles Fries, O. S. B.
Spring Hill	Spring Hill College	E. Cummings, S. J	John J. Navin, S. J.
Tuscaloosa	Central Female College	H. B. Foster	John T. Bealle.
University	University of Alabama	Gov. Charles Henderson.	Robison Brown.
ARIZONA.			
Tucson	University of Arizona	F. H. Hereford	William Jennings Bryan, jr.
ARKANSAS.			
Arkadelphia	Henderson-Brown College	Finley F. Gibson, D.D.	C. C. Tobey.
Do	Ouachita College		
Batesville	Arkansas College	James P. Coffin	J. L. Boggs.
Clarksville	Arkansas Cumberland College	W. H. Wilson	W. H. H. Shibley.
Conway	Central College	J. P. Runyan, M. D	J. F. Jones.
Do	Hendrix College	James Thomas	V. D. Hill.
Fayetteville	University of Arkansas	Hon. George W. Hays.	W. H. Cravens.
Little Rock	Philander Smith College (colored).	H. P. Coulter, D. D	F. B. Coffin.
CALIFORNIA.			
Berkeley	University of California	Hon. Hiram W. Johnson.	Victor H. Henderson.
Claremont	Pomona College	George W. Marston	Charles B. Sumner.
Los Angeles	Occidental College	Hon. Frank P. Flint	W. S. Young.
Do	St. Vincents College		
Do	University of Southern California.	Ezra A. Healy	A. E. Pomeroy.
Mills College	Mills College	David P. Barrows	Warren Olney, sr.
Oakland	St. Mary's College	William Kelly	A. A. McKinnon.
Pasadena	Throop College of Technology	Norman Bridge	Edward C. Barrett.
Redlands	University of Redlands	Mattison B. Jones	J. W. Curtis.
St. Helena	Pacific Union College	E. E. Andross	Claude Conard.
San Francisco	St. Ignatius University	Patrick J. Foote, S. J.	D. J. Mahoney, S. J.
San Jose	College of the Pacific	Rolla V. Watt	H. E. Milnes.
Santa Clara	University of Santa Clara	Walter F. Thornton, S. J.	Joseph Riordan, S. J.
Stanford University	Leland Stanford Junior University.	William M. Newhall	Leon Sloss.
Whittier	Whittier College	William V. Coffin	Lydia J. Jackson.
COLORADO.			
Boulder	University of Colorado	Livingston Farrand, ex. off.	Frank H. Wolcott.
Colorado Springs	Colorado College	William F. Slocum	Willis L. Armstrong.
Denver	College of the Sacred Heart	J. J. Brown	E. S. J. Hyde.
Fort Collins	Colorado Agricultural College	A. A. Edwards	L. M. Taylor.
Golden	State School of Mines	F. G. Willis	James T. Smith.
Greeley	State Teachers College of Colorado.	H. V. Kepner	A. J. Park.
Montclaire	Colorado Woman's College	A. H. Stockham	Rufus G. Gentry.
University Park	University of Denver	William G. Evans	F. J. Chamberlin.
Westminster	Westminster University	John C. Murray	James S. Temple.
CONNECTICUT.			
Hartford	Trinity College	Flavel S. Luther	P. Henry Woodward.
Middletown	Wesleyan University	John C. Clark	David G. Downey.
New Haven	Yale University	Arthur Twining Hadley.	Anson Phelps Stokes.
Storrs	Connecticut Agricultural College.	Gov. Marcus H. Holcomb, ex-officio.	O. F. King.
DELAWARE.			
Newark	Delaware College	Henry B. Thompson	Charles B. Evans.

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XI.—Officers of Boards of Trustees of Universities and Colleges.—Contd.

Location.	University or college.	President of board of trustees.	Secretary of board of trustees.
DISTRICT OF COLUMBIA.			
Washington	American University	Benjamin F. Leighton.	Charles W. Baldwin.
Do	Catholic University of America	James Cardinal Gibbons.	Right Rev. J. F. Regis Canevin.
Do	Gallaudet College	Percival Hall	Charles S. Bradley.
Do	Georgetown University	Alphonsus J. Donlon, S. J.	John B. Creeden, S. J.
Do	George Washington University.	John Bell Larner	Richard Cobb.
Do	Howard University (colored)	Stanton J. Peelle	George W. Cook.
Do	St. John's College	Brother Philip	Brother Denis.
Do	Trinity College	James Cardinal Gibbons.	Sister Gertrude.
FLORIDA.			
Deland	John B. Stetson University	John B. Stetson, jr	Silas B. Wright.
Gainesville	University of Florida	P. K. Yonge	J. G. Kellum.
Sutherland	Southern College	J. B. Mitchel	J. B. Ley.
Tallahassee	Florida State College for Women.	P. K. Yonge	J. G. Kellum.
Winter Park	Rollins College	W. F. Blackman	W. R. O'Neal.
GEORGIA.			
Athens	University of Georgia	Henry D. McDaniel	T. W. Reed.
Atlanta	Morehouse College (colored)	John F. Purser	E. R. Carter.
Do	Atlanta University (colored)	Edward T. Ware	William B. Matthews.
Do	Georgia School of Technology	N. E. Harris	James S. Akers.
Do	Morris Brown College (colored)	J. S. Flipper	William D. Johnson.
College Park	Cox College	W. S. Cox	C. L. Fowler.
Cuthbert	Andrew College	J. B. Wight	C. W. Curry.
Dahlonega	North Georgia Agricultural College.	W. B. McCants	R. H. Baker.
Decatur	Agnes Scott College	J. K. Orr	F. H. Gaines.
Demorest	Piedmont College	Philip F. Moxon	G. S. Butler.
Forsyth	Bessie Tift College	O. H. B. Bloodworth	Samuel Rutherford.
Gainesville	Brenau College	H. H. Dean	J. H. Hosch.
Lagrange	Lagrange Female College	John M. Barnard	Frank Harwell.
Do	Southern Female College	L. J. Render	E. R. Callaway.
Macon	Mercer University	W. B. Hardman	R. C. Granberry.
Do	Wesleyan Female College	W. N. Ainsworth	George B. Jewett.
Oxford	Emory University	Asa G. Candler	W. D. Thomson.
Rome	Shorter College	W. W. Brookes	J. P. Cooper.
South Atlanta	Clark University (colored)	F. D. Leete	W. H. Crogman.
HAWAII.			
Honolulu	College of Hawaii	W. R. Farrington	A. L. Dean.
IDAHO.			
Caldwell	College of Idaho	David A. Clemens (chairman).	L. S. Dille.
Moscow	University of Idaho	H. Harland	Walter S. Bruce.
ILLINOIS.			
Abingdon	Hedding College	Joe Bell	E. H. Bradway.
Aledo	William and Vashti College	Henry E. Burgess	David A. Hebel.
Alton	Shurtleff College	A. A. Curry	John Leverett.
Bloomington	Illinois Wesleyan University	Sain Welty	F. M. Austin.
Bourbonnais	St. Viator College	J. P. O'Mahoney, C. S. V.	W. J. Bergin, C. S. V.
Carlinville	Blackburn College	Ira W. Allen	Thomas Rinaker.
Carthage	Carthage College	Ezra Keller	William Rosenstengel.
Chicago	Armour Institute of Technology	J. Ogden Armour	Frederick U. Smith.
Do	De Paul University	F. X. McCabe, C. M.	D. J. McHugh, C. M.
Do	Lewis Institute	Christian C. Kohlsaat	John McLaren.
Do	Loyola University	John L. Furay, S. J.	Abbett Esterman, S. J.
Do	University of Chicago	Martin A. Ryerson	J. Spencer Dickerson.
Decatur	James Millikin University	W. J. Darby	H. E. Starkey.
Eureka	Eureka College	T. J. McGuire	Mrs. Mary H. Jones.
Evanston	Northwestern University	William F. McDowell	Frank Philip Crandon.
Ewing	Ewing College	George W. Allison	J. A. Seargeant.
Galesburg	Knox College	Thomas McClelland	Alvah S. Green.
Do	Lombard College	Lyman McCarl	Frank L. Conger.
Greenville	Greenville College	Franklin H. Ashcraft	F. L. Hall.
Jacksonville	Illinois College	Andrew Russel	Carl E. Black.
Do	Illinois Woman's College	T. J. Pitner	Joseph R. Harker.
Knoxville	St. Mary's School	M. Edward Fawcett	Charles W Leffingwell.

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XI.—Officers of Boards of Trustees of Universities and Colleges—Contd.

Location.	University or college.	President of board of trustees.	Secretary of board of trustees.
ILLINOIS—continued.			
Lake Forest	Lake Forest College	Clayton Mark	John H. S. Lee.
Lebanon	McKendree College	Hon. Charles S. Deneen	James C. Dolley.
Lincoln	Lincoln College	J. E. Miller	E. Burton.
Monmouth	Monmouth College	Thomas H. McMichael	Ivory Quinby.
Mount Carroll	Frances Shimer School		William P. McKee.
Naperville	Northwestern College	Samuel P. Spreng	E. M. Spreng.
Quincy	St. Francis Solanus College	Samuel Macke	Edward Mueller.
Rockford	Rockford College	Edward P. Lathrop	George O. Forbes.
Rock Island	Augustana College	Joseph A. Anderson	Theodore Ekblad.
Upper Alton	Shurtleff College	A. A. Curry	John Leverett.
Urbana	University of Illinois	William L. Abbott	H. E. Cunningham.
Wheaton	Wheaton College	Charles A. Blanchard	Darien A. Stran.
INDIANA.			
Bloomington	Indiana University	Theodore F. Rose	John W. Cravens.
Collegeville	St. Joseph's College	George Hindelang, C. PP. S.	Ignatius Wagner, C. PP. S.
Crawfordsville	Wabash College	Harry J. Milligan	Theodore H. Ristine.
Earlham	Earlham College	Amos K. Hollowell	Mary A. Stubbs.
Fort Wayne	Concordia College	Rev. A. Lange, chairman.	Rev. W. E. Moll.
Franklin	Franklin College	Grafton Johnson	Will A. Burton.
Goshen	Goshen College	John Blosser	D. D. Miller.
Greencastle	De Pauw University	Hugh Dougherty	H. H. Hornbrook.
Hanover	Hanover College	Jasper W. La Grange	John S. Howk.
Indianapolis	Butler College	Hilton U. Brown	Barton W. Cole.
Do	Indiana Central University	Irby J. Good	Jessie L. Hanger.
Lafayette	Purdue University	Addison C. Harris	Edward A. Ellsworth.
Merom	Union Christian College	C. B. Hershey	W. S. Sanford.
Moores Hill	Moores Hill College	W. H. Watson	George H. Murphy.
Notre Dame	St. Mary's College and Academy	Mother M. Perpetua	Mother M. Aquina.
Do	University of Notre Dame	Andrew Morrissey, Ph. D.	William Conner.
Oakland City	Oakland City College	D. B. Montgomery	J. P. Cox.
St. Meinrad	St. Meinrad College	A. Schmitt, O. S. B.	Benno Gerber, O. S. B.
Terre Haute	Rose Polytechnic Institute	W. C. Ball	Paul N. Bogart.
Upland	Taylor University	C. C. Ayres	George W. Mooney.
Valparaiso	Valparaiso University	Henry B. Brown	John E. Roessler.
Vincennes	Vincennes University	W. M. Hindman	W. B. Robinson.
IOWA.			
Ames	Iowa State College of Agriculture and Mechanic Arts.	D. D. Murphy	W. H. Gemmill.
Cedar Falls	Iowa State Teachers College	do	Do.
Cedar Rapids	Coe College	E. R. Burkhalter	John S. Ely.
Clinton	Wartburg College	C. Proehl	J. F. Reinsch.
Decorah	Luther College	C. K. Preus	Chr. Næseth.
Des Moines	Des Moines College	J. R. Vaughan	Nelson Royal.
Do	Drake University	Theo. P. Shonts	George A. Jewett.
Dubuque	Dubuque College	Archbishop Keane	Albert S. Peikert.
Fairfield	Parsons College	Thomas D. Foster	Charles J. Fulton.
Fayette	Upper Iowa University	N. A. Mershon	C. R. Carpenter.
Grinnell	Grinnell College	John H. T. Main	H. W. Somers.
Hopkinton	Lenox College	D. W. Fahs	W. H. Ensign.
Indianola	Simpson College	W. H. Berry	J. W. Henderson.
Iowa City	State University of Iowa	D. D. Murphy	W. H. Gemmill.
Iowa Falls	Ellsworth College	Silas M. Weaver	F. D. Peet.
Lamoni	Graceland College	Albert Carmichael	J. F. Garver.
Mount Pleasant	Iowa Wesleyan College	Hugh A. Cole	Thomas Osborn.
Mount Vernon	Cornell College		Hamline H. Freer.
Oskaloosa	Penn College	William A. Johnson	Walter F. Dexter.
Pella	Central University of Iowa	B. F. Brinkman	John Wesselink.
Sioux City	Morningside College	E. C. Heilman	F. O. Barz.
Storm Lake	Buena Vista College	L. M. Nusbaum	Guy E. Mack.
Tabor	Tabor College	Nelson W. Wehrhan	C. F. Fisher.
Toledo	Leander Clark College	J. J. Shambaugh	Ross Masters.
University Park	Central Holiness University	George Ramsay	Eloise T. Gilmore.
KANSAS.			
Atchison	Midland College	E. E. Stauffer	R. B. Peery.
Do	St. Benedict's College	Innocent Wolf, O. S. B.	Damian Lavery, O. S. B.
Baldwin	Baker University	Nelson Case	Charles E. Beeks.
Emporia	College of Emporia	William Foulkes	W. W. Bowman.
Highland	Highland College	William M. Boone	Tobias Larson.
Holton	Campbell College	John W. Waldron	Samuel T. Osterbold.

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XI.—Officers of Boards of Trustees of Universities and Colleges—Contd.

Location.	University or college.	President of board of trustees.	Secretary of board of trustees.
KANSAS—continued.			
Kansas City	Kansas City University	Bishop Cyrus J. Kephart.	R. H. Bennett.
Lawrence	University of Kansas	Ed. T. Hackney	Lee Harrison.
Lindsborg	Bethany College	Alfred Bergin	Andrew Monson.
McPherson	McPherson College	J. J. Yoder	H. J. Harnly.
Manhattan	Kansas State Agricultural College.	Ed. T. Hackney	Lee Harrison.
Ottawa	Ottawa University	O. C. Brown	A. Willis.
St. Marys	St. Mary's College	William J. Wallace, S. J.	Thomas A. McNelve, S. J.
Salina	Kansas Wesleyan University	T. W. Roach	C. W. Stevens.
Sterling	Cooper College	J. W. Duff	W. E. Currie.
Topeka	Washburn College	P. P. Wormer	Ella May Pixley.
Wichita	Fairmount College	H. W. Darling	Robert L. Holmes.
Do	Friends' University	Calvin C. Kesinger	William S. Hadley.
Winfield	Southwestern College	A. O. Ebright	R. L. George.
KENTUCKY.			
Berea	Berea College	William G. Frost	A. E. Thompson.
Bowling Green	Ogden College	Max B. Nahm	D. W. Wright.
Danville	Kentucky College for Women	John A. Quisenberry	J. A. Cheek.
Do	Central University of Kentucky	A. J. A. Alexander	Do.
Georgetown	Georgetown College	G. H. Nunnelly	J. W. Thacker.
Hopkinsville	Bethel Female College	C. M. Thompson	T. W. Blakey.
Lexington	Hamilton College for Women	J. W. Porter	Richard W. Wallace.
Do	Sayre College	Clifton B. Ross	J. M. Spencer.
Do	State University of Kentucky	Hon. A. O. Stanley	William T. Lafferty.
Do	Transylvania College	W. Hume Logan	Roger H. Smith.
Louisville	University of Louisville	A. Y. Ford	W. H. Bradbury.
Owensboro	Owensboro Female College	R. L. Lancaster	Henry W. Pearson.
Russellville	Bethel College	M. E. Alderson	H. L. Trimble.
Do	Logan Female College	Frank M. Thomas	A. P. Lyon.
St. Mary	St. Mary's College	Michael Jagiowicz, C.R.	Ignatius Perius, C.R.
Winchester	Kentucky Wesleyan College	John R. Deering	J. P. Strother.
LOUISIANA.			
Baton Rouge	Louisiana State University and Agricultural and Mechanical College.	Hon. R. G. Pleasant	A. T. Prescott.
Clinton	Silliman Collegiate Institute	D. F. Wilkinson	D. M. Pipes.
Convent	Jefferson College		
Mansfield	Mansfield Female College	R. T. Moore	R. E. Babbits.
New Orleans	H. Sophie Newcomb Memorial College.	R. M. Walmsley	L. A. Wogan.
Do	Loyola University	A. E. Otis, S. J.	John J. Sherry, S. J.
Do	New Orleans University (colored).	Bishop Thirkield	Valcour Chapman.
Do	Tulane University of Louisiana	Robert Sharp	L. A. Wogan.
MAINE.			
Brunswick	Bowdoin College	Rev. William DeWitt Hyde.	Barrett Potter.
Lewiston	Bates College	George C. Chase	Franklin M. Drew.
Orono	University of Maine	Samuel W. Gould	Thomas V. Doherty.
Van Buren	Van Buren College (St. Mary's)	Matthew E. Thouvenin, S. M.	Peter Charles Keegan.
Waterville	Colby College	Leslie C. Cornish	Wilford C. Chapman.
MARYLAND.			
Annapolis	St. John's College	Gov. Emerson C. Harrington.	L. Dorsey Gassaway.
Do	United States Naval Academy	Capt. E. W. Eberle, chairman of Academic Board.	Lieut.Com. Thomas R. Kurtz, secretary of Academic Board.
Baltimore	Goucher College	Summerfield Baldwin.	L. T. Widerman.
Do	Johns Hopkins University	R. Brent Keyser	Henry D. Harlan.
Do	Loyola College	William J. Ennis, S.J.	Richard A. Fleming, S. J.
Do	Morgan College (colored)	John F. Goucher	Joseph H. Lockerman.
Do	Mount St. Joseph's College	Brother Isadore, C. F. X.	Brother Philip, C. F. X.
Chestertown	Washington College	James A. Pearce	Lewin W. Wickes.
College Park	Maryland State College of Agriculture.	Gov. Phillips L. Goldsborough.	W. Harrison.
Ellicott City	Rock Hill College	Brother Philip, F.S.C.	Brother Basil, F. S. C.

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XI.—Officers of Boards of Trustees of Universities and Colleges—Contd.

Location.	University or college.	President of board of trustees.	Secretary of board of trustees.
MARYLAND—contd.			
Emmitsburg	Mount St. Mary's College	Right Rev. Mgr. Bernard J. Bradley.	Rev. Edward B. Jordan.
Frederick	Hood College	William C. Schaeffer	Frederick A. Rupley.
Lutherville	Maryland College for Women	George Scholl	James S. Nusser.
Westminster	Western Maryland College	Charles Billingslea	T. H. Lewis.
MASSACHUSETTS.			
Amherst	Amherst College	George A. Plimpton	Williston Walker.
Do	Massachusetts Agricultural College.	Charles A. Gleason	Wilfred Wheeler.
Boston	Boston College	C. W. Lyons, S. J.	John S. Keating, S. J.
Do	Boston University	John L. Bates	George S. Butters.
Do	Simmons College	Henry Lefavour	John W. Bartol.
Cambridge	Harvard University	George von L. Meyer	Winthrop H. Wade.
Do	Massachusetts Institute of Technology.	Richard C. MacLaurin	James P. Munroe.
Do	Radcliffe College	Le Baron R. Briggs	Anna Wellington Wolbach.
Northampton	Smith College	Marion Le Roy Burton	Charles N. Clark.
Norton	Wheaton College	Samuel V. Cole	Annie M. Kilham.
South Hadley	Mount Holyoke College	Joseph A. Skinner	Francis Parsons.
Tufts College	Tufts College	Austin B. Fletcher	Edmund W. Kellogg.
Wellesley	Wellesley College	Bishop William Lawrence.	Mrs. Henry F. Durant.
Williamstown	Williams College	Harry A. Garfield	Willard E. Hoyt.
Worcester	Clark University	A. George Bullock	G. Stanley Hall.
Do	Clark College	....do	Do.
Do	College of the Holy Cross	Joseph N. Dinand, S. J.	James A. Mullen, S. J.
Do	Worcester Polytechnic Institute	Charles G. Washburn	Charles Baker.
MICHIGAN.			
Adrian	Adrian College	Myron W. Hoisington	J. S. Gray.
Albion	Albion College	E. N. Parsons	Samuel Dickie.
Alma	Alma College	James M. Barkley	Albert P. Cook.
Ann Arbor	University of Michigan	Harry B. Hutchins	Shirley W. Smith.
Detroit	University of Detroit	William T. Doran, S. J	Henry W. Otting, S. J.
East Lansing	Michigan Agricultural College	Frank S. Kedzie	Addison M. Brown.
Hillsdale	Hillsdale College	W. E. Ambler	Grover A. Jackson.
Holland	Hope College	Rev. Ame Vennema	Gerrit J. Diekema.
Houghton	Michigan College of Mines	William Kelly	F. W. McNair.
Kalamazoo	Kalamazoo College	R. E. Olds	C. W. Oakley.
Olivet	Olivet College	Thomas F. Kane	Edward M. Wyble.
MINNESOTA.			
Albert Lea	Albert Lea College	H. E. Skinner	John F. D. Meighen.
Collegeville	St. John's University	Peter Engel, O. S. B.	Kilian Heid, O. S. B.
Minneapolis	Augsburg Seminary	K. B. Birkeland	Fred Paulson.
Do	University of Minnesota	Fred B. Snyder	George H. Hayes.
Northfield	Carleton College	David P. Jones	Harlan W. Page.
Do	St. Olaf College	S. H. Holstad	O. O. Erling.
St. Paul	Hamline University	Matthew G. Norton	Joseph N. Hackney.
Do	Macalester College	Thomas Shaw	B. H. Schriber.
St. Peter	Gustavus Adolphus College	A. T. Lundholm	O. A. Elmquist.
MISSISSIPPI.			
Agricultural College	Mississippi Agricultural and Mechanical College.	Hon. Theodore G. Bilbo.	O. F. Lawrence.
Blue Mountain	Blue Mountain Female College	B. G. Lowrey	
Brookhaven	Whitworth Female College	Thad. B. Lampton	H. B. Watkins.
Clinton	Hillman College	W. T. Lowrey	Do.
Do	Mississippi College	W. T. Ratcliff	W. A. McComb.
Columbus	Industrial Institute and College.	Hon. Theodore G. Bilbo.	O. F. Lawrence.
French Camp	Central Mississippi Institute		
Grenada	Grenada College	J. R. Counties	J. E. Cunningham.
Holly Springs	Rust University (colored)	John E. Anderson	F. H. Henry.
Jackson	Bellhaven College for Young Ladies.	J. R. Dobyns	
Do	Millsaps College	W. B. Murruh	J. B. Streater.
Meridian	Meridian Male College	L. P. Brown	T. C. Harmon.
Do	Meridian Woman's College	....do	Do.
Pontotoc	Chickasaw Female College		
Port Gibson	Port Gibson Female College	M. M. Satterfield	H. Walter Featherstone.
University	University of Mississippi	Hon. Theodore G. Bilbo.	O. F. Lawrence.

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XI.—Officers of Boards of Trustees of Universities and Colleges—Contd.

Location.	University or college.	President of board of trustees.	Secretary of board of trustees.
MISSOURI.			
Albany	Palmer College	J. W. Piper	E. A. Watkins.
Cameron	Missouri Wesleyan College	J. O. Taylor	Ben. F. Jones.
Canton	Christian University	W. B. McRoberts	Ed N. Cason.
Columbia	Christian College	D. A. Robnett	Mrs. L. W. St. Clair.
Do	Stephens College	W. W. Charters	J. E. Thornton.
Do	University of Missouri	David R. Francis	J. G. Babb.
Fayette	Central College	John A. Rich	L. W. Jacobs.
Do	Howard Payne College	A. W. Walker	H. K. Givens.
Fulton	Westminster College	B. F. Edwards	B. H. Charles.
Do	Synodical College	A. D. Smith	
Glasgow	Pritchett College	J. H. Jackson	W. M. Pritchett.
Lexington	Central College for Women	P. P. Lewis	E. N. Hopkins.
Do	Lexington College for Young Women.	Walter B. Waddell	H. C. Wallace.
Liberty	Liberty Ladies College		
Do	William Jewell College	J. S. Major	J. E. Cook.
Marshall	Missouri Valley College	W. P. Stark	D. F. Manning.
Mexico	Hardin College	C. F. Clark	W. B. Sapping.
Morrisville	Scarritt-Morrisville College	C. J. Wilkins	J. J. Orten.
Nevada	Cottey College	F. H. Glenn	J. M. Hall.
Parkville	Park College	Homer Mann	M. Hasenjager.
St. Charles	Lindenwood College for Women	James Gay Butler	George B. Cummings.
St. Louis	Christian Brothers College	Owen O'Curran	George Sternbruck.
Do	Forest Park College	B. F. Edwards	M. Rhodes.
Do	St. Louis University	Bernard J. Otting, S. J.	Matthew McMenamy, S. J.
Do	Washington University	Robert S. Brookings	Edmund A. Engler.
Springfield	Drury College	J. G. McMurty	G. W. Nonemacher.
Tarkio	Tarkio College	A. L. Davidson	John P. Stevenson.
Warrenton	Central Wesleyan College	Franz Piehler	D. W. Smith.
MONTANA.			
Bozeman	Montana College of Agriculture and Mechanic Arts.	Hon. S. V. Stewart	H. A. Davee.
Butte	Montana State School of Mines	do	Do.
Missoula	University of Montana	do	Do.
NEBRASKA.			
Bellevue	Bellevue College	C. M. Wilhelm	G. G. Wallace.
Bethany	Cotner University	John Currie	John H. Bicknell.
College View	Union College	R. A. Underwood	H. A. Morrison.
Crete	Doane College	William A. Selleck	George W. Mitchell.
Grand Island	Grand Island College	I. W. Carpenter	Elias F. Starr.
Hastings	Hastings College	J. W. James	P. L. Johnson.
Lincoln	University of Nebraska	Victor G. Lyford,	James S. Dales.
Omaha	Creighton University	F. X. McMenamy, S. J.	William P. Whelan, S. J.
Do	University of Omaha	Archie W. Carpenter	W. T. Graham.
University Place	Nebraska Wesleyan University	A. L. Johnson	J. W. Embree.
York	York College	C. E. Sandall	J. W. Purinton.
NEVADA.			
Reno	State University of Nevada	Charles B. Henderson	George H. Taylor.
NEW HAMPSHIRE.			
Durham	New Hampshire College of Agriculture and Mechanic Arts.	H. L. Boutwell	J. A. Tufts.
Hanover	Dartmouth College	Ernest Fox Nichols	William Martin Chase.
Manchester	St. Anselm's College	Ernest Helmstetter, O. S. B.	Frederick Zwinger, O. S. B.
NEW JERSEY.			
Convent Station	College of St. Elisabeth	Sister Mary Pauline Kelligar.	Sister Mary Agnes Sharkey.
Hoboken	Stevens Institute of Technology	Alex. C. Humphreys	Franklin B. Kirkbride.
Jersey City	St. Peter's College	James F. McDermott, S. J.	
Kenilworth	Upsala College	Mauritz Stolpe	P. A. Rydberg.
New Brunswick	Rutgers College	William H. S. Demarest.	J. Preston Searle.
Princeton	Princeton University	John G. Hibben [1]	Charles W. McAlpin.
South Orange	Seton Hall College	Right Rev. Mgr. James F. Mooney.	James J. Sheehan.

[1] The governor of the State of New Jersey is ex-officio president of the board of trustees.

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XI.—Officers of Boards of Trustees of Universities and Colleges—Contd.

Location.	University or college.	President of board of trustees.	Secretary of board of trustees.
NEW MEXICO.			
Albuquerque	University of New Mexico	George L. Brooks	J. A. Reidy.
Socorro	New Mexico School of Mines	A. C. Torres	John McIntyre.
State College	New Mexico College of Agriculture and Mechanic Arts.	James H. Paxton	P. F. McCanna.
NEW YORK.			
Albany	New York State College for Teachers.	John H. Finley	Erastus Corning.
Alfred	Alfred University	Vernon A. Baggs	D. S. Burdick.
Annandale-on-Hudson.	St. Stephen's College	David H. Greer	F. B. Reazor.
Aurora	Wells College	N. Lansing Zabriskie	Robert L. Zabriskie.
Brooklyn	Adelphi College	James H. Post	H. K. Twitchell.
Do	Polytechnic Institute of Brooklyn.	Fred W. Atkinson	Richard L. Russell.
Do	St. Francis College	Right Rev. Mons. George Kaupert.	Brother David, O. S. F.
Do	College of St. Francis Xavier	Rev. Joseph H. Rockwell, S. J.	Rev. Joseph H. Smith, S. J.
Do	St. John's College	John W. Moore, C. M.	E. L. Carey, C. M.
Buffalo	Canisius College	George J. Krim, S. J.	John J. Greene, S. J.
Canton	St. Lawrence University	Vasco P. Abbott	Frank N. Cleaveland.
Clinton	Hamilton College	Elihu Root	George B. Dunham.
Elmira	Elmira College	H. C. Mandeville	Arthur Clinton.
Geneva	Hobart College	Douglas Merritt (chairman).	P. N. Nicholas.
Hamilton	Colgate University	Sidney M. Colgate	James C. Colgate.
Ithaca	Cornell University		Charles D. Bostwick.
New Rochelle	College of New Rochelle	Adrian Iselin, jr	Edward J. McGuire.
New York	Barnard College	Silas B. Brownell (chairman).	Frederic B. Jennings, clerk.
Do	College of the City of New York	Charles E. Lydecker	James W. Hyde.
Do	Columbia University	George L. Rives	John B. Pine.
Do	Fordham University	Joseph A. Mulry, S. J.	Joseph T. Keating, S. J.
Do	Hunter College of the City of New York.	Edward J. McGuire, chairman.	A. Emerson Palmer.
Do	Manhattan College	Brother Henry August, F. S. C.	Brother Potamian, F. S. C.
Do	New York University	George Alexander	George A. Strong.
Do	Teachers College	V. Everit Macy	Dunlevy Milbank.
Niagara University	Niagara University	M. A. Drennan, C. M.	Alonzo C. Baldwin, C. M.
Potsdam	Clarkson College of Technology	George H. Sweet	Hugh A. Grant.
Poughkeepsie	Vassar College	W. C. P. Rhoades (chairman).	Henry V. Pelton.
Rochester	University of Rochester	John P. Munn	Charles M. Williams.
St. Bonaventure	St. Bonaventure's College	Anselm Kennedy, O. F. M.	Alexander M. Hickey, O. F. M.
Schenectady	Union University	Silas B. Brownell	Edgar S. Barney.
Syracuse	Syracuse University	John D. Archbold	DeWitt B. Thompson.
Troy	Rensselaer Polytechnic Institute.	Palmer C. Ricketts	John Squires.
West Point	U. S. Military Academy	None	None.
NORTH CAROLINA.			
Belmont	Belmont Abbey College	Right Rev. Leo Haid, O. S. B.	Thomas Oestreich, O. S. B.
Chapel Hill	University of North Carolina	Hon. Locke Craig	R. D. W. Connor.
Charlotte	Biddle University (colored)	R. P. Wyche	S. F. Wentz.
Do	Queens College	A. A. McGeaghy	A. G. Brenizer.
Davidson	Davidson College	W. L. Lingle	W. J. McKay.
Durham	Trinity College	J. H. Southgate	D. W. Newsom.
Elon College	Elon College	W. A. Harper	P. H. Fleming.
Greensboro	Greensboro College for Women		Charles H. Ireland.
Guilford College	Guilford College	J. Elwood Cox	David White.
Hickory	Lenoir College	J. H. C. Huitt	E. J. Sox.
Newton	Catawba College	H. E. Rowe	J. B. Leonard.
Oxford	Oxford College	F. P. Hobgood	Thornton Yancey.
Raleigh	Meredith College	W. N. Jones	J. E. Ray.
Do	Peace Institute	James R. Young	George J. Ramsey.
Do	St. Mary's School	Joseph B. Cheshire	K. P. Battle, jr.
Do	Shaw University (colored)	W. S. Tanner	H. L. Morehouse.
Red Springs	Flora Macdonald College	A. W. McLean	John W. McLauchlin.
Salisbury	Livingstone College (colored)	J. W. Hood, D. D.	James E. Mason.
Wake Forest	Wake Forest College	Edwin F. Aydlett	Carey J. Hunter.
Weaverville	Weaver College	F. M. Weaver	J. A. Nichols.

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XI.—Officers of Boards of Trustees of Universities and Colleges—Contd.

Location.	University or college.	President of board of trustees.	Secretary of board of trustees.
NORTH CAROLINA—continued.			
West Raleigh	North Carolina College of Agriculture and Mechanic Arts.	Hon. Locke Craig, ex officio.	C. W. Gold.
Wilson	Atlantic Christian College	George Haskney	S. G. Newborn.
Winston-Salem	Salem Academy and College	Edward Rondthaler	Howard E. Rondthaler.
NORTH DAKOTA.			
Agricultural College	North Dakota Agricultural College.	Lewis F. Crawford	Charles E. Brewer.
Fargo	Fargo College	John W. Hansel	Edwin B. Stickney.
Jamestown	Jamestown College	H. M. Taber	John Knauf.
University	University of North Dakota	Lewis F. Crawford	Charles E. Brewer.
Do	Wesley College	Frank Lynch	John W. Ogren.
OHIO.			
Ada	Ohio Northern University	S. A. Hoskins	George Whitney.
Akron	The Municipal University of Akron.	Frank M. Cooke	C. R. Olin.
Alliance	Mount Union College	Walter M. Eliot	R. H. Carr.
Ashland	Ashland College	William Kolb, jr	R. R. Teeter.
Athens	Ohio University	Alston Ellis	Israel M. Foster.
Berea	Baldwin-Wallace College	Albert J. Nast	Dayton C. Miller.
Bluffton	Bluffton College	J. F. Lehman	L. J. Lehman.
Cedarville	Cedarville College	James H. Creswell	James L. Chestnut.
Cincinnati	St. Xavier College	Rev. Francis Heiermann, S. J.	Rev. George A. McGovern, S. J.
Do	University of Cincinnati	Rufus B. Smith	Daniel Laurence.
Cleveland	Case School of Applied Science	John M. Henderson	Eckstein Case.
do	St. Ignatius College	William B. Sommerhauser, S. J.	Francis J. Hagerney.
Do	Western Reserve University	Charles F. Thwing	John Dickerman.
Columbus	Capital University	C. F. W. Allwardt	L. H. Burry.
Do	Ohio State University	Julius F. Stone	Carl E. Steeb.
Dayton	St. Mary College	George Meyer, S. M.	George N. Sauer, S. M.
Defiance	Defiance College	D. M. McCullough	Elizabeth F. Wells.
Delaware	Ohio Wesleyan University	David S. Gray	William G. Hormell.
Findlay	Findlay College	William Harris Guyer	A. O. Hamilton.
Gambier	Kenyon College	Bishop William A. Leonard.	Francis W. Blake.
Granville	Dennison University	G. Moore Peters	Millard Breisford.
Hiram	Hiram College	Frederick A. Henry	James O. Newcomb.
Lebanon	Lebanon University	J. Warren Wood	H. E. Cunningham.
Marietta	Marietta College	G. W. Hinman	W. W. Mills.
New Athens	Franklin College	R. G. Campbell	John W. Eicher.
New Concord	Muskingum College	R. W. Nairn	W. J. Grimes.
Oberlin	Oberlin College	Henry C. King	George M. Jones.
Oxford	Miami University	Walter L. Tobey	George S. Bishop.
Do	Oxford College for Women	Jane Sherzer	William H. Stewart.
Do	Western College for Women	J. S. Crowell	Mrs. B. A. Richardson.
Painesville	Lake Erie College	James R. Garfield	Frank J. Jerome.
Rio Grande	Rio Grande College	Benner Jones	John M. Davis.
Springfield	Wittenberg College	F. F. Myers	A. H. Smith.
Tiffin	Heidelberg University	George F. Baries	J. Calvin Royer.
Toledo	St. Johns University	John A. Weiand, S. J.	William J. Engelen, S. J.
Do	Toledo University	William H. Tucker	Lucille E. Mack.
Westerville	Otterbein University	G. A. Lambert	E. L. Weiniand.
West Lafayette	West Lafayette College	J. F. Cappel	Charles H. Beck.
Wilberforce	Wilberforce University (colored)	C. T. Shaffer	P. A. Nichols.
Wilmington	Wilmington College	David E. Dunham	Lorenna Farquhar.
Wooster	College of Wooster	O. A. Hills	Jesse McClellan.
Yellow Springs	Antioch College	S. D. Fess	George D. Black.
OKLAHOMA.			
Guthrie	Methodist University of Oklahoma.	William M. Short	Albert L. McRill.
Kingfisher	Kingfisher College	George L. Bowman	Charles W. Fisk.
Norman	University of Oklahoma	Lynn Glover	
Stillwater	Oklahoma Agricultural and Mechanical College.	F. M. Gault	Don B. Lawhead.
Tulsa	Henry Kendall College	D. I. Johnston	Ralph J. Lamb.
Wilburton	Oklahoma School of Mines and Metallurgy.	R. H. Wilson	Leslie T. Huffman.
OREGON.			
Albany	Albany College	Frank J. Miller	William Fortmiller.
Corvallis	Oregon Agricultural College	J. K. Weatherford	N. B. Moore.
Dallas	Dallas College	Charles C. Poling	A. W. Teats.

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XI.—Officers of Boards of Trustees of Universities and Colleges—Contd.

Location.	University or college.	President of board of trustees.	Secretary of board of trustees.
OREGON—continued.			
Eugene	University of Oregon	R. S. Bean	L. H. Johnson.
Forest Grove	Pacific University	B. S. Huntington	Napoleon Davis.
McMinnville	McMinnville College	B. F. Rhodes	Walter P. Dyke.
Newberg	Pacific College	Ezra H. Woodward	Evangeline Martin.
Philomath	Philomath College	F. W. Jones	G. E. McDonald.
Portland	Reed College	Thomas L. Eliot	William P. Olds.
Salem	Willamette University	T. S. McDaniel	I. H. van Winkle.
PENNSYLVANIA.			
Allentown	Allentown College for Women	Webster Grim	F. H. Moyer.
Do	Muhlenberg College	Reuben J. Butz	W. D. C. Keiter.
Annville	Lebanon Valley College	A. S. Kreider	W. H. Weaver.
Beatty	St. Vincent College	Leander Schnerr, O. S. B.	Gerard Bridge, O. S. B.
Beaver	Beaver College	W. F. Connor	Robert Darragh.
Beaver Falls	Geneva College	R. C. Wylie	R. H. Martin.
Bethlehem	Moravian College and Theological Seminary.	Right Rev. Charles L. Moench.	Albert G. Rau.
Do	Moravian Seminary and College for Women.	Abraham S. Schropp	E. A. Rau.
Bryn Mawr	Bryn Mawr College	James Wood	Anna Rhoads Ladd.
Carlisle	Dickinson College	E. W. Biddle	Charles W. Straw.
Chambersburg	Wilson College	J. Ritchie Smith	Thomas J. Brereton.
Chester	Pennsylvania Military College	John Wanamaker	Frank G. Sweeney.
Collegeville	Ursinus College	H. E. Paisley	S. L. Messinger.
Easton	Lafayette College	Israel P. Pardee	Davis Bennett King.
Gettysburg	Pennsylvania College	John F. Dapp	H. C. Picking.
Greenville	Thiel College	W. E. Frey	Ira M. Wallace.
Grove City	Grove City College	F. R. Babcock	William S. McKay.
Haverford	Haverford College		J. Henry Scattergood.
Huntingdon	Juniata College	H. B. Brumbaugh	J. A. Myers.
Lancaster	Franklin and Marshall College	B. F. Fackenthal, jr	George F. Mull.
Lewisburg	Bucknell University	Harry S. Hopper	A. J. Rowland.
Lincoln University	Lincoln University (colored)	John B. Rendall	William C. Robinson.
Meadville	Allegheny College	Frank A. Arter	James P. Colter.
Mechanicsburg	Irving Female College	A. R. Steck	Charles R. Trowbridge.
Myerstown	Albright College	W. E. Detweiler	J. H. Shirey.
New Wilmington	Westminster College	W. Charles Wallace, D. D.	W. T. Pierce.
Philadelphia	Drexel Institute	Alexander van Rensselaer.	Herman Dercum.
Do	Dropsie College	Cyrus Adler	Ephraim Lederer.
Do	La Salle College	Archbishop Prendergast.	Brother D. Aloysius, F. S. C.
Do	Temple University	Russell H. Conwell	George A. Welsh.
Do	University of Pennsylvania	Edgar F. Smith	Edward Robins.
Pittsburgh	Carnegie Institute of Technology.	William McConway	W. Lucien Scaife.
Do	Duquesne University of the Holy Ghost.	Martin A. Hehir	John E. Kane.
Do	Pennsylvania College for Women.	Oliver McClintock	William H. Rea.
Do	University of Pittsburgh	George H. Clapp	Samuel B. Linhart.
Selinsgrove	Susquehanna University	Charles T. Aikens	R. L. Schroyer.
South Bethlehem	Lehigh University	Henry R. Price	Warren A. Wilbur.
State College	Pennsylvania State College	H. Walton Mitchell	Edwin E. Sparks.
Swarthmore	Swarthmore College	Robert M. Janney	Hetty L. Miller.
Villanova	Villanova College	N. J. Murphy, O. S. A.	T. C. Middleton, O. S. A.
Washington	Washington and Jefferson College.	John A. McIlvaine	James I. Brownson.
Waynesburg	Waynesburg College	Nathan B. Evans	J. W. Ray.
PORTO RICO.			
Rio Piedras	University of Porto Rico	Paul G. Miller	Henry B. Moore.
RHODE ISLAND.			
Kingston	Rhode Island State College	Walter E. Ranger	Robert S. Burlingame.
Providence	Brown University	William H. P. Faunce.	Thomas D. Anderson.
SOUTH CAROLINA.			
Charleston	College of Charleston	Harrison Randolph	J. C. Ball.
Do	The Citadel, The Military College of South Carolina.	Col. O. J. Bond, Supt.	
Clemson College	Clemson Agricultural College	Alan Johnstone	Samuel W. Evans.
Clinton	Presbyterian College of South Carolina.	Alexander Martin	A. E. Spencer.

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XI—Officers of Boards of Trustees of Universities and Colleges—Contd.

Location.	University or college.	President of board of trustees.	Secretary of board of trustees.
SOUTH CAROLINA—continued.			
College Place	Columbia College	E. O. Watson	A. N. Brunson.
Columbia	Allen University (colored)	L. J. Coppin	Greene Jackson.
Do	Benedict College (colored)	Charles L. White	B. W. Valentine.
Do	University of South Carolina	Gov. Richard I. Manning.	Sarah F. Fickling.
Due West	Erskine College	J. P. Knox	G. G. Parkinson.
Do	Woman's College of Due West	A. S. Kennedy	E. L. Reid.
Greenville	Chicora College	J. P. Marion	S. C. Byrd.
Do	Furman University	J. J. Lawton	A. G. Furman.
Do	Greenville Female College	T. T. Hyde	B. F. Martin.
Greenwood	Lander College	George W. Sullivan	M. W. Hook.
Hartsville	Coker College	James L. Coker	J. J. Lawton.
Newberry	Newberry College	George B. Cromer	James D. Kinard.
Orangeburg	Chaflin University (colored)		C. C. Jacobs.
Spartanburg	Converse College	J. B. Cleveland	H. L. Bomar.
Do	Wofford College	J. Lyles Glenn	James W. Kilgo.
SOUTH DAKOTA.			
Brookings	South Dakota State College of Agriculture and Mechanic Arts.	T. W. Dwight	Edwin L. Aldrich.
Huron	Huron College	H. M. Gage	J. I. Pasek.
Mitchell	Dakota Wesleyan University	S. E. Morris	Lewis Shuster.
Rapid City	State School of Mines	T. W. Dwight	I. D. Aldrich.
Redfield	Redfield College	M. F. Eversz	A. Loomis.
Sioux Falls	Sioux Falls College	S. P. Shaw	A. E. Godfrey.
Vermilion	University of South Dakota	T. W. Dwight	I. D. Aldrich.
Yankton	Yankton College	H. K. Warren	Albert L. Lee.
TENNESSEE.			
Bristol	King College	John H. Caldwell	Tilden Scherer.
Do	Sullins College	A. D. Reynolds	T. F. Staley.
Chattanooga	University of Chattanooga	H. S. Chamberlain	H. C. Beck.
Clarksville	Southwestern Presbyterian University.	J. R. Dobyns	M. Savage.
Cumberland Gap	Lincoln Memorial University	George A. Hubbell	J. H. S. Morison.
Gallatin	Howard College for Young Ladies.		
Greeneville	Tusculum College	Henry R. Brown	E. J. Baxter.
Jackson	Memphis Conference Female Institute.	W. D. Jenkins	Alva W. Taylor.
Do	Union University	O. C. Barton	A. M. Alexander.
Jefferson City	Carson-Newman College	J. Pike Powers	J. N. Ellis.
Knoxville	Knoxville College (colored)	D. A. McClenahan	J. W. Witherspoon.
Do	The University of Tennessee	Brown Ayres	William Rule.
Lebanon	Cumberland University	A. B. Martin	A. W. Hooker.
McKenzie	Bethel College	A. I. Owen	J. W. Smith.
Maryville	Maryville College	Edgar A. Elmore	Fred. L. Proffitt.
Memphis	Christian Brothers College	Brother Elzear	Brother Leander.
Milligan	Milligan College	C. C. Taylor	Walter Price.
Murfreesboro	Tennessee College	C. H. Byrn	John Williams.
Nashville	Boscobel College	W. M. Lunsford	William Hume.
Do	Fisk University (colored)	Paul D. Cravath	C. J. Ryder.
Do	Peabody College for Teachers	Edward T. Sanford	Charles E. Little.
Do	Vanderbilt University	Whitefoord R. Cole	Claude Waller.
Do	Walden University (colored)	John M. Walden	George W. Hubbard.
Rogersville	Rogersville Synodical College	Hugh G. Kyle	A. B. Rogan.
Sewanee	University of the South	Bishop T. F. Gailer	James G. Glass.
Spencer	Burritt College	H. C. Denson	J. Logan Malloy.
Washington College	Washington College	James T. Cooter	J. W. Whitlock.
TEXAS.			
Abilene	Simmons College	George L. Paxton	G. B. Paxton.
Austin	University of Texas	F. W. Cook	E. J. Mathews.
Belton	Baylor Female College	W. C. Lattimore	C. B. Smith.
Brownwood	Daniel Baker College	J. D. Leslie	Brooke Smith.
Do	Howard Payne College	T. C. Yantis	J. L. King.
College Station	Agricultural and Mechanical College of Texas.	John I. Guion	Isaac S. Ashburn.
Fort Worth	Texas Christian University	T. E. Tomlinson	E. M. Waits.
Do	Texas Woman's College	Ocie Speer	P. G. Dedmon.
Georgetown	Southwestern University	T. L. McCullough	R. G. Mood.
Houston	Rice Institute		
San Antonio	St. Louis College	A. Frische	E. F. Leimkubler.
Sherman	Austin College	W. M. Anderson	William F. Galbraith.
Do	North Texas Female College	John Marshall	P. C. Archer.
South Houston	Asgard College		

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XI.—Officers of Boards of Trustees of Universities and Colleges—Contd.

Location.	University or college.	President of board of trustees.	Secretary of board of trustees.
TEXAS—continued.			
Tehuacana	Westminster College	W. M. Moody	J. C. Williams.
Waco	Baylor University	Pat M. Neff	W. H. Jenkins.
Do	Paul Quinn College (colored)	C. S. Smith, D. D.	H. D. Winn.
Waxahachie	Trinity University	F. N. Drane	H. L. Williamson.
UTAH.			
Logan	Agricultural College of Utah	Lorenzo N. Stohl	John L. Coburn.
Salt Lake City	University of Utah	W. W. Riter	
VERMONT.			
Burlington	University of Vermont and State Agricultural College.	Guy P. Benton	Edmund C. Mower.
Middlebury	Middlebury College	John M. Thomas	John A. Fletcher.
Northfield	Norwich University	Ira L. Reeves	George E. Carpenter.
Winooski	St. Michael's College	E. M. Salmon, S. S. E.	E. Alliot, S. S. E.
VIRGINIA.			
Abingdon	Martha Washington College	M. H. Honaker	L. T. Cosby.
Do	Stonewall Jackson College	J. A. Buchanan	M. A. Barbee.
Ashland	Randolph-Macon College	E. D. Newman	S. C. Hatcher.
Blacksburg	Virginia Agricultural and Mechanical College and Polytechnic Institute.	J. Thompson Brown	Charles I. Wade.
Bridgewater	Bridgewater College	Hiram G. Miller	Sidney L. Bowman.
Bristol	Virginia Intermont College	John R. Dickey	S. C. Hodges.
Charlottesville	University of Virginia	Armistead C. Gordon, rector.	E. I. Carruthers, bursar.
Danville	Roanoke Institute of Danville	Joseph B. Anderson	W. W. Rivers.
Emory	Emory and Henry College	M. H. Honaker	G. E. Penn.
Hampden Sidney	Hampden-Sidney College	Henry T. Graham, ex officio.	F. T. McFaden.
Hollins	Hollins College	Lucian H. Cocke	M. Estes Cocke.
Lexington	Virginia Military Institute	R. A. James	L. E. Steele.
Do	Washington and Lee University.	William A. Anderson, rector.	Paul M. Penick.
Lynchburg	Randolph-Macon Woman's College.	E. D. Newman	S. C. Hatcher.
Do	Virginia Christian College	Richie Ware	W. G. Shackelford.
Manassas	Eastern College	Hervin U. Roop	Thomas H. Lion.
Richmond	Richmond College	J. Taylor Ellyson	B. West Tabb.
Do	Virginia Union University (colored).	Henry L. Morehouse	William C. James.
Roanoke	Virginia College (Junior) for Young Women.	Mattie P. Harris	Annie Lorraine Lyon.
Salem	Elizabeth College	R. W. Kime	Charles K. Hunton.
Do	Roanoke College	Henry S. Trout	Robert W. Kime.
Sweet Briar	Sweet Briar College	A. M. Randolph	Arthur P. Gray.
Williamsburg	College of William and Mary	Robert M. Hughes	L. W. Lane, jr.
WASHINGTON.			
Pullman	State College of Washington	W. A. Rits	E. O. Holland.
Seattle	University of Washington	Oscar A. Fechter	William Markham.
Spokane	Gonzaga University	James M. Brogan, S. J.	Edward P. Kenney, S. J.
Do	Spokane College	B. M. Branford	P. O. Floan.
Do	Whitworth College	Donald D. MacKay	R. E. Porterfield.
Tacoma	College of Puget Sound	E. L. Blaine	Dix H. Rowland.
Walla Walla	Whitman College	George H. Turner	Dorsey M. Hill
WEST VIRGINIA.			
Barboursville	Morris Harvey College	C. W. Thornberg	C. L. Harshbar
Bethany	Bethany College	Thomas E. Cramblet	M. V. Danford.
Buckhannon	West Virginia Wesleyan College.	Charles W. Lynch	John A. Barnes.
Elkins	Davis and Elkins College	Howard Sutherland, vice president.	Frederick H. Barron.
Morgantown	West Virginia University	M. P. Shawkey	J. F. Marsh.
WISCONSIN.			
Appleton	Lawrence College	L. M. Alexander	Herman Saecker.
Beloit	Beloit College	Edward D. Eaton	Edward B. Kilbourn.
Madison	University of Wisconsin	Granville D. Jones	M. E. McCaffrey.
Milton	Milton College	Fred C. Dunn	Allen B. West.

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XI.—Officers of Boards of Trustees of Universities and Colleges—Contd.

Location.	University or college.	President of board of trustees.	Secretary of board of trustees.
WISCONSIN—con.			
Milwaukee	Concordia College	William Matthes	B. Sievers.
Do	Marquette University	Joseph Grimmelsman, S. J.	James D. Foley, S. J.
Do	Milwaukee-Downer College	W. W. Wight	Charles H. Palmer.
Plymouth	Mission House	H. C. Nott	E. A. Hofer.
Prairie du Chien	Campion College	George R. Kister	James J. Daly.
Ripon	Ripon College	Silas Evans	Samuel M. Pedrick.
Sinsinawa	St. Clara College and Academy	Mother M. Samuel	Sister M. Reginald.
Watertown	Northwestern College	G. E. Bergemann	H. Machmueller.
Waukesha	Carroll College	William W. Perry	Henry W. Phelps.
WYOMING.			
Laramie	University of Wyoming	T. F. Burke	F. S. Burrage.

XII.—Presidents and Deans of Professional Schools.

1.—SCHOOLS OF THEOLOGY.

Location.	Name of institution.	President or dean.
St. Bernard, Ala	St Bernard College and Abbey (R. C.)	Bernard Menges, D. D., O. S. B.
Selma, Ala	Payne University Theological Department (A. M. E.).	William H. Bowen, D. D.
Talladega, Ala	Talladega College Theological Seminary (Cong.).	Frank S. Brewer, B. A.
Tuscaloosa, Ala	Stillman Institute (Presb.)	James G. Snedecor, LL. D.
Argenta, Ark	Shorter College Theological Department (A. M. E.).	J. N. Campbell, B. D.
Little Rock, Ark	Arkansas Baptist College School of Theology.	Joseph A. Booker, D. D.
Do	St. John's Diocesan Seminary (R. C.)	Winand H. Aretz, A. M.
Berkeley, Cal	Berkeley Baptist Divinity School	Claiborne M. Hill, D. D.
Do	Berkeley Bible Seminary (Disc.)	Dennison A. Russell, D. D.
Do	Pacific Theological Seminary (undenominational).	Charles Sumner Nash, D. D.
Do	Pacific Unitarian School for the Ministry	Earl Morse Wilbur, D. D.
os Angeles, Cal	University of Southern California, Maclay College of Theology (M. E.).	Ezra A. Healy, D. D.
Menlo Park, Cal	St. Patrick's Seminary (R. C.)	Henry A. Ayrinhac, S. S.
San Anselmo, Cal	San Francisco Theological Seminary (Presb.).	Warren Hall Landon, D. D.
San Francisco, Cal	Church Divinity School of the Pacific (P. E.).	William F. Nichols, D. D.
Denver, Colo	Iliff School of Theology (M. E.)	James A. Beebe, D. D.
Hartford, Conn	Hartford Theological Seminary (Cong.)	William Douglas Mackenzie, D. D., LL. D.
Middletown, Conn	Berkeley Divinity School (P. E.)	Samuel Hart, D. D., LL. D.
New Haven, Conn	Yale University School of Religion (nonsectarian).	Charles Reynolds Brown, D. D.
Washington, D. C	Catholic University of America, School of Sacred Sciences (R. C.).	Charles Francis Aiken, D. D.
Do	Howard University Theological Department (interdenominational).	Frank P. Woodbury, D. D.
St. Leo, Fla	St. Leo College and Abbey (R. C.)	Charles H. Mohr, O. S. B., D. D.
Atlanta, Ga	Atlanta Theological Seminary (Cong.)	E. Lyman Hood, Ph. D.
Do	Morehouse College Divinity School	C. C. Smith, D. D.
Do	Morris Brown University, Turner Theological Seminary (A. M. E.).	P. W. Greatheart, D. D.
Do	Gammon Theological Seminary (M. E.)	Philip M. Watters, D. D
Aurora, Ill	Aurora College Biblical Department (Advent Chris.).	Orrin R. Jenks, D. B.
Bourbonnais, Ill	St. Viator College Theological Seminary (R. C.)	J. P. O'Mahoney, C. S. V.
Chicago, Ill	Bethany Bible School	Albert C. Wieand.
Do	Chicago Theological Seminary (Cong.)	Ozora Stearns Davis, D. D.
Chicago (Maywood), Ill.	Evangelical Lutheran Theological Seminary at Chicago.	Elmer F. Krauss, D. D.
Chicago, Ill	McCormick Theological Seminary (Presb.)	James G. K. McClure, D. D., LL. D.
Do	University of Chicago Divinity School (Bapt.)	Shailer Mathews, D. D.

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XII.—Presidents and Deans of Professional Schools—Continued.

1.—SCHOOLS OF THEOLOGY—Continued.

Location.	Name of institution.	President or dean.
Chicago, Ill	Western Theological Seminary (P. E.)	William C. De Witt, S. T. D.
Evanston, Ill	Garrett Biblical Institute, Northwestern University (M. E.).	Charles M. Stuart, D. D., LL. D.
Do	Norwegian-Danish Theological Seminary, Northwestern University (M. E.).	Nels E. Simonsen, D. D.
Do	Swedish Theological Seminary, Northwestern University (M. E.)	Rev. Carl G. Wallenius.
Greenville, Ill	Greenville College School of Theology (Free Meth.).	John La Due, A. M.
Naperville, Ill	Evangelical Theological Seminary in cooperation with North Western College (Ev. Asso.).	S. J. Gamertsfelder, D. D.
Rock Island, Ill	Augustana College Theological Seminary (Ev. Luth.).	Gustav Andreen, Ph. D., R. N. O. K. V. O.
Springfield, Ill	Concordia College Theological Seminary (Ev. Luth. Synod of Missouri, Ohio, and other States).	Rev. R. D. Biedermann.
Merom, Ind	Union Christian College Biblical Department (Chris.).	Charles B. Hershey, D. D.
St. Meinrad, Ind	St. Meinrad College Ecclesiastical Seminary (R. C.)	Gregory Bechtold, O. S. B.
Upland, Ind	Taylor University Reade Theological Seminary (M. E.)	Newton Wray, B. D., D. D.
Des Moines, Iowa	Drake University College of the Bible (Chris.).	Jesse C. Caldwell, B. D., LL. D.
Do	Grand View College Theological School (Luth.).	Theodore Knudsen.
Dubuque, Iowa	Dubuque College and Seminary (Presb.)	Cornelius M. Steffens, D. D., president.
Do	Wartburg Theological Seminary (Ev. Luth.).	M. Fritschel, D. D.
Atchison, Kans	Western Theological Seminary of Ev. Luth. Church, Midland College.	Holmes Dysinger, D. D.
Kansas City, Kans	Kansas City Baptist Theological Seminary.	Philip W. Crannell, D. D.
Do	Kansas City University College of Theology (Meth. Prot.)	Herbert T. Stephens, D. D.
Topeka, Kans	Kansas Theological School	Frank H. Millspaugh, D. D.
Crofton, Ky	Central Christian Institute	William H. Dickerson.
Kingswood, Ky	Department of Theology, Christian Ethics and Metaphysics, Kingswood College.	J. W. Hughes, Ph. B.
Lexington, Ky	College of the Bible, Transylvania College (Chris.)	Hall L. Calhoun, Ph. D., dean.
Louisville, Ky	Presbyterian Theological Seminary of Kentucky.	Charles R. Hemphill, D. D., LL. D.
Do	Southern Baptist Theological Seminary	Edgar Y. Mullins, D. D., LL. D.
Do	State University Theological Department (Bapt.).	Marshall B. Lanier, B. D.
Bangor, Me	Bangor Theological Seminary (Cong.)	David N. Beach, D. D.
Baltimore, Md	St. Mary's Seminary (R. C.)	E. R. Dyer, S. S., D. D.
Emmitsburg, Md	Mount St. Mary College, Ecclesiastical Seminary (R. C.)	B. J. Bradley, LL. D.
Westminster, Md	Westminster Theological Seminary (Meth. Prot.)	Hugh Latimer Elderdice, D. D.
Woodstock, Md	Woodstock College (R. C.)	Joseph F. Hanselman, S. J.
Boston, Mass	Boston University School of Theology (M. E.).	L. J. Birney, D. D.
Boston (Brighton), Mass.	St. John's Boston Ecclesiastical Seminary (R. C.).	John B. Peterson, Ph. D.
Cambridge, Mass	Andover Theological Seminary (Cong.)	Albert Parker Fitch, D. D.
Do	Episcopal Theological School	George Hodges, D. D., D. C. L., LL. D.
Do	Harvard University Divinity School (Nonsect.).	William Wallace Fenn, D. D.
Do	New-Church Theological School (Ch. of N. Jeru.).	Rev. William L. Worcester.
Newton Center, Mass	Newton Theological Institution (Bapt.)	George Edwin Horr, D. D., LL. D.
Tufts College, Mass	Tufts College, Crane Theological School (Univ.).	Lee S. McCollester, D. D.
Adrian, Mich	Adrian Theological Seminary, Adrian College (Meth. Prot.).	O. R. Stilson, A. M.
Grand Rapids, Mich	Theological School and Calvin College (Chris. Ref. Ch.).	Rev. William Heyns.
Hancock, Mich	Suomi College Theological Seminary (Finnish Ev. Luth.).	John K. Nikander, D. D.
Holland, Mich	Western Theological Seminary (Ref. Ch. in Amer.).	John Walter Beardslee, D. D., LL. D.
Owasso, Mich	Bible Holiness Seminary School of Theology.	Rev. C. G. Taylor.
Collegeville, Minn	St. John's University Ecclesiastical Seminary (R. C.).	Rt. Rev. Peter Engel, O. S. B.

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XII.—Presidents and Deans of Professional Schools—Continued.

1.—SCHOOLS OF THEOLOGY—Continued.

Location.	Name of institution.	President or dean.
Fairbault, Minn.	Seabury Divinity School (P. E.)	Frederick F. Kramer, Ph. D., D. D.
Minneapolis, Minn.	Augsburg Seminary (Ev. Luth.)	George Sverdrup, M. A.
Red Wing, Minn.	Red Wing Theological Seminary, Red Wing College (Ev. Luth.).	Edward William Schmidt, M. A.
St. Paul, Minn.	Bethel Theological Seminary (Bapt.)	Rev. G. Arvid Hagstrom.
Do.	German Evangelical Lutheran Seminary.	H. Ernst, D. D.
Do.	Evangelical Norwegian Luther. Seminary.	Johs. Ylvisaker.
Do.	St. Paul Theological Seminary (R. C.)	Francis J. Schaefer, D. D.
St. Paul (St. Anthony Park), Minn.	Seminary of the United Norwegian Lutheran Church.	Marcus Olaus Böckman, D. D.
Jackson, Miss.	J. P. Campbell College, Department of Theology (A. M. E.).	J. Allen Bynoe.
Meridian, Miss.	Meridian Male College, School of Theology and Evangelism (Nonsect.).	M. A. Beeson, S. D.
Columbia, Mo.	Bible College of Missouri	Rev. Granville D. Edwards.
Canton, Mo.	School of Religion in Christian University.	Henry B. Robison, Ph. D.
St. Louis, Mo.	Concordia Theological Seminary (Ev. Luth.).	Francis Pieper, D. D.
Do.	German (Eden) Evangelical Missouri College (German Ev. Synod of N. A.).	William Becker.
Do.	Kenrick Theological Seminary (R. C.)	M. S. Ryan, C. M., D. D.
Do.	St. Louis University School of Divinity (R. C.).	Francis J. O'Boyle, S. J.
Warrenton, Mo.	Central Wesleyan College German Theological Seminary (M. E.).	Friedrich Munz, D. D.
Blair, Nebr.	Dana College, Trinity Seminary (Ev. Luth.)	P. S. Vig.
Omaha, Nebr.	Presbyterian Theological Seminary	Albert B. Marshall, D. D., LL. D.
Bloomfield, N. J.	Bloomfield Theological Seminary (Presb.).	Henry J. Weber, Ph. D., D. D., dean.
Madison, N. J.	Drew Theological Seminary (M. E.)	Ezra Squier Tipple, D. D.
New Brunswick, N. J.	Theological Seminary of the Reformed Church in America.	J. Preston Searle, D. D.
Princeton, N. J.	Princeton Theological Seminary of the Presbyterian Church.	J. Ross Stevenson, D. D., LL. D.
South Orange, N. J.	Diocesan Seminary of the Immaculate Conception, Seton Hall College (R. C.).	Mgr. James F. Mooney.
Alfred, N. Y.	Alfred Theological Seminary (affiliated with Alfred Univeristy) (7th Day Bapt.).	Arthur E. Main, D. D.
Auburn, N. Y.	Auburn Theological Seminary (Presb.)	George B. Stewart, D. D., LL. D.
Brooklyn, N. Y.	St. John's College Diocesan Theological Seminary (R. C.).	C. J. Gorman, C. M.
Buffalo, N. Y.	German Martin Luther Seminary	Rudolph Graban.
Canton, N. Y.	Canton Theological School of St. Lawrence University (Univ.).	John Murray Atwood, D. D.
Esopus, N. Y.	Mount St. Alphonsus Theological Seminary, Redemptorist College (R. C.).	Francis G. Fischer, C. SS. R.
Geneva, N. Y.	De Lancy Divinity School (P. E.)	Thomas B. Berry, S. T. D., warden.
Hamilton, N. Y.	Theological Seminary, Colgate University (Nonsect.).	John F. Vichert, D. D., dean.
Hartwick Seminary, N. Y.	Hartwick Seminary (Ev. Luth.)	Alfred Hiller, D. D.
Houghton, N. Y.	Houghton Wesleyan Methodist Theological Seminary.	James S. Luckey, president.
New York (City), N. Y.	Bible Teachers' Training School (Interdenominational).	William Hoge Marquess, D. D., LL. D., dean.
Do.	General Theological Seminary of the Protestant Episcopal Church.	Herbert M. Denslow, D. D.
New York (City), N. Y.	Jewish Theological Seminary	Cyrus Adler, Ph. D., acting president.
Do.	Union Theological Seminary (Interdenominational).	Arthur C. McGiffert, D. D., acting president.
Niagara University, N. Y.	Niagara University Seminary of Our Lady of Angels (R. C.).	M. A. Drennan, C. M.
North Chili, N. Y.	A. M. Chesbrough Seminary (Chris.)	George H. Coleman, A. B., preceptor.
Rochester, N. Y.	Rochester Theological Seminary (Bapt.)	Clarence A. Barbour, D. D.
Do.	St. Bernard's Theological Seminary (R. C.).	James J. Hartley, D. D., prorector.
St. Bonaventure, N. Y.	St. Bonaventure Seminary and College (R. C.).	Alexander M. Hickey, O. F. M.
Yonkers, N. Y.	St. Joseph's Seminary, Cathedral College (R. C.).	John P. Chidwick, D. D.
Ayden, N. C.	Ayden Seminary (Free Will Bapt.)	J. E. Sawyer, A. B.
Belmont, N. C.	Belmont Abbey Seminary (R. C.)	Rt. Rev. Leo Haid, O. S. B., D. D.
Charlotte, N. C.	Biddle University School of Theology (Presb.).	H. L. McCrorey, D. D.
Raleigh, N. C.	Shaw University Theological School (Bapt.)	Nicholas F. Roberts, D. D., dean.
Salisbury, N. C.	Hood Theological Seminary of Livingston College (A. M. E. Z.).	William H. Goler, D. D.
Wilson, N. C.	Atlantic Christian College, Department of Ministerial Training.	Raymond A. Smith, B. D.

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XII.—Presidents and Deans of Professional Schools—Continued.

1.—SCHOOLS OF THEOLOGY—Continued.

Location.	Name of institution.	President or dean.
Ashland, Ohio	Ashland College, Theological Seminary (Brethren).	J. Allen Miller, D. D.
Berea, Ohio	Baldwin-Wallace College, Nast Theological Seminary (M. E.).	Frederic Cramer, A. M.
Carthagena, Ohio	St. Charles Borromeo Theological Seminary (R. C.).	Paulinus Trost, C. PP. S.
Cincinnati, Ohio	Hebrew Union College	Kaufmann Kohler, Ph. D.
Do	Lane Theological Seminary (Presb.)	William McKibbin, D. D., LL. D.
Cleveland, Ohio	St. Mary's Theological Seminary (R. C.)	J. P. Michaelis, rector.
Columbus, Ohio	Evangelical Lutheran Theological Seminary, Capital University.	F. W. Stellhorn, D. D.
Dayton, Ohio	Bonebrake Theological Seminary (U. Breth.).	Josiah P. Landis, Ph. D., D. D.
Do	Central Theological Seminary of the Reformed Church in the United States.	Henry J. Christman, D. D.
Defiance, Ohio	Christian Biblical Institute, Defiance College.	George C. Enders, D. D.
Ellenora, Ohio	Mount St. Mary's Seminary of the West (R. C.).	Very Rev. Frank J. L. Beckman, S. T. D.
Findlay, Ohio	Findlay College, Department of Theology (Church of God).	William Harris Guyer, D. D., president.
Gambier, Ohio	Kenyon College Divinity School (P. E.)	Hosea W. Jones, D. D.
Oberlin, Ohio	Graduate School of Theology of Oberlin College (Nonsect.).	Edward Increase Bosworth, D. D.; George Walter Fiske, D. B.
Springfield, Ohio	Wittenberg College, Hamma Divinity School (Ev. Luth.).	David H. Bauslin.
Wilberforce, Ohio	Wilberforce University, Payne Theological Seminary (A. M. E.).	George F. Woodson, D. D.
Xenia, Ohio	United Presbyterian Theological Seminary.	Joseph Kyle, D. D., LL. D.
Eugene, Oreg	Eugene Bible University (Chris. or Disc.).	Eugene C. Sanderson, D. D.
Salem, Oreg	Kimball College of Theology	Henry J. Talbott, D. D.
Beatty, Pa	St. Vincent's Seminary (R. C.)	Leander Schnerr, O. S. B.
Bethlehem, Pa	Moravian College Theological Seminary	Augustus Schultz, L. H. D., D. D.
Chester, Pa	Crozer Theological Seminary (Bapt.)	Milton G. Evans, D. D., LL. D.
Gettysburg, Pa	Theological Seminary of the General Synod of Ev. Luth. Church in United States.	J. A. Singmaster, D. D.
Lancaster, Pa	Theological Seminary of the Reformed Church in the United States.	John C. Bowman, D. D.
Lincoln University, Pa	Lincoln University Theological Department (Presb.).	Frank H. Ridgeley, B. D.
Meadville, Pa	Meadville Theological School (Unita.)	Franklin C. Southworth, D. D.
Overbrook, Pa	St. Charles Borromeo Seminary (R. C.)	Henry T. Drumgoole, LL. D., rector.
Philadelphia (Mount Airy), Pa.	Lutheran Theological Seminary at Philadelphia.	Henry Eyster Jacobs, D. D.
Philadelphia, Pa	Protestant Episcopal Church Divinity School.	Rev. George G. Bartlett.
Philadelphia (Germantown), Pa.	St. Vincent Seminary (R. C.)	Frederick J. Maume, C. M.
Philadelphia, Pa	Temple University Theological School (Nonsect.).	Walter B. Shumway, D. D.
Pittsburgh, Pa	Pittsburgh Theological Seminary (United Presb.).	John McNaugher, D. D., LL. D.
Do	Reformed Presbyterian Theological Seminary.	Richard Cameron Wylie, D. D., LL. D.
Do	Western Theological Seminary (Presb.)	James A. Kelso, Ph. D., D. D.
Selinsgrove, Pa	Susquehanna University School of Theology (Ev. Luth.).	Franklin P. Manhart, D. D., dean.
Villanova, Pa	Villanova College, Augustinian Scholastic Department (R. C.).	Joseph A. Hickey, O. S. A., J. C. D., regent of studies.
Columbia, S. C	Allen University, Department of Theology (A. M. E.).	T. B. Nelson, D. D.
Do	Columbia Theological Seminary (Presb.)	Thornton Whaling, D. D.
Do	Lutheran Theological Seminary of the United Synod.	Andrew G. Voigt, D. D., LL. D.
Due West, S. C	Erskine Theological Seminary (A. R. Presb.).	F. Y. Pressly, D. D.
Clarksville, Tenn	Divinity School of Southwestern Presbyterian University.	Angus Robertson Shaw, D. D.
Jackson, Tenn	Lane College Theological School (Colo. M. E.).	Isaac C. Snowden, B. D.
Kimberlin Heights, Tenn.	Johnson Bible College	Ashley Sidney Johnson, LL. D.
Knoxville, Tenn	Knoxville College Theological School (Un. Presb.).	R. W. McGranahan, D. D.
Nashville, Tenn	Vanderbilt University School of Religion (nonsectarian).	Wilbur F. Tillett, D. D.
Do	Walden University, Theological Department (M. E.).	Henry H. Oneal, D. D.

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XII.—Presidents and Deans of Professional Schools—Continued.

1.—SCHOOLS OF THEOLOGY—Continued.

Location.	Name of institution.	President or dean.
Sewanee, Tenn.	University of the South Theological Department (P. E.).	Cleveland Keith Benedict, D. D.
Austin, Tex.	Austin Presbyterian Theological Seminary.	James O. Reavis, D. D.
Dallas, Tex.	School of Theology, Southern Methodist University.	Bishop Edwin D. Mouzon, D. D., LL. D.
Fort Worth, Tex.	Southwestern Baptist Theological Seminary	Benajah H. Carroll, D. D., LL.D.
Do.	Brite College of the Bible, Texas Christian University.	Colby D. Hall, A. M.
Marshall, Tex.	Bishop College Theological Department (Bapt.).	Charles H. Maxson.
Peniel, Tex.	Peniel University Department of Theology (Holiness).	James B. Chapman, B. D.
Seguin, Tex.	Guadalupe College, Department of Theology (Bapt.).	
Tyler, Tex.	Texas College, Theological Department (Colo. M. E.).	Rev. E. Seth Godbey, theological teacher.
Waco, Tex.	Paul Quinn College Department of Theology (A. M. E.).	
Bridgewater, Va.	Bridgewater College Bible Department (Breth.).	Samuel N. McCann, B. A.
Lynchburg, Va.	Virginia Theological Seminary and College (Bapt.).	Robert C. Woods, D. D.
Petersburg, Va.	Bishop Payne Divinity School (P. E.).	C. B. Bryan, D. D.
Richmond, Va.	Union Theological Seminary in Virginia (Presb.).	Walter W. Moore, D. D., LL. D.
Do.	Virginia Union University Theological Department (Bapt.).	George Rice Hovey, D. D.
Theological Seminary, Va.	Theological Seminary of the Protestant Episcopal Church in Virginia.	Angus Crawford, D. D.
Bethany, W. Va.	Bethany College, Department of Ministerial Education.	William Brooks Taylor, A. M.
Nashotah, Wis.	Nashotah House (Episcopal).	Edward A. Larrabee, D. D.
Oconomowoc, Wis.	College of the Immaculate Conception Theological School (R. C.).	C. D. McEnniry, C. SS. R.
Plymouth, Wis.	Provincial Seminary of the Reformed Church, Mission House College.	E. A. Hofer, D. D.
St. Francis, Wis.	Provincial Seminary of St. Francis de Sales (R. C.).	Joseph Rainer, V. G.
Wauwatosa, Wis.	Evangelical Lutheran Theological Seminary.	John Schaller.

2.—SCHOOLS OF LAW.

University, Ala.	University of Alabama, Law Department.	Albert J. Farrah, LL. B.
Little Rock, Ark.	Arkansas Law School.	John H. Carmichael, LL. B.
Berkeley, Cal.	University of California School of Jurisprudence.	William Carey Jones, M. A.
Los Angeles, Cal.	University of Southern California College of Law.	Frank M. Porter, LL. M.
Do.	Southwestern University, School of Law.	Arthur J. Abbott, J. D.
Oakland, Cal.	Oakland College of Law.	W. J. Connell.
San Francisco, Cal.	Hastings College of Law, University of California.	Edward R. Taylor, M. D.
Do.	Law Department of St. Ignatius University.	Matt. I. Sullivan, LL. D.
Do.	San Francisco Law School.	James A. Ballentine, A. B.
Do.	San Francisco Young Men's Christian Association Law School.	Thomas E. Haven.
Santa Clara, Cal.	University of Santa Clara Institute of Law.	James H. Campbell, Ph. D.
Stanford University, Cal.	Leland Stanford Junior University, Law Department.	Charles A. Huston, J. D., S. J. D.
Boulder, Colo.	University of Colorado, School of Law.	John D. Fleming, LL. D.
Denver, Colo.	University of Denver Law School.	George C. Manly, LL. B.
New Haven, Conn.	Yale University Law School.	Thomas Walter Swan, LL. B.
Washington, D. C.	Catholic University of America School of Law.	Thomas C. Carrigan, Ph. D., LL. D.
Do.	Georgetown University School of Law.	George E. Hamilton, LL. D.
Do.	George Washington University Law School.	Everett Fraser, LL. B.
Do.	Howard University Law School.	Benjamin F. Leighton, LL. D.
Do.	National University Law School.	Charles F. Carusi, LL. M.
Do.	Washington College of Law.	Emma M. Gillett, LL. M.
Deland, Fla.	John B. Stetson University College of Law.	Richmond A. Rasco, LL. B.
Gainesville, Fla.	University of Florida College of Law.	Harry R. Trusler, LL. B.
Athens, Ga.	University of Georgia, Law Department.	Sylvanus Morris, LL. D.
Atlanta, Ga.	Atlanta Law School.	Hamilton Douglas, Ph. M., LL. B.
Macon, Ga.	Mercer University Law School.	Emory Speer, LL. D.
Moscow, Idaho.	University of Idaho College of Law.	George D. Ayers, LL. B.

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XII.—Presidents and Deans of Professional Schools—Continued.

2.—SCHOOLS OF LAW—Continued.

Location.	Name of institution.	President or dean.
Bloomington, Ill.	Illinois Wesleyan University, Bloomington Law School.	Charles L. Capen, A. M.
Chicago, Ill.	Chicago Law School.	John J. Tobias, LL. B., chancellor.
Do.	Chicago-Kent Law School.	Edmund W. Burke, A. M.
Do.	De Paul University Law School.	Francis X. Busch, LL. D.
Do.	Hamilton College of Law.	John H. Cummings, jr., LL. B.
Do.	John Marshall Law School.	Edward T. Lee, LL. B.
Do.	Loyola University, College of Law.	William Dillon, LL. D.
Do.	Northern Illinois University Law School.	Frederick Junchhoff, LL. D.
Do.	Northwestern University, Union College of Law.	John H. Wigmore, LL. D.
Do.	University of Chicago Law School.	James Parker Hall, LL. B.
Urbana, Ill.	University of Illinois College of Law.	Oliver A. Harker, LL. D.
Bloomington, Ind.	Indiana University School of Law.	Enoch G. Hogate, LL. D.
Danville, Ind.	Central Normal College School of Law.	Solon A. Enloe, A. B.
Indianapolis, Ind.	Benjamin Harrison Law School.	Theophilus J. Moll, LL. M.
Do.	University of Indianapolis, Indiana Law School.	James A. Rohbach, LL. D.
Muncie, Ind.	Muncie National Institute, Department of Law.	Lex Kintner, dean.
Notre Dame, Ind.	University of Notre Dame, Law Department.	William Hoynes, LL. D.
Valparaiso, Ind.	Valparaiso University of Law School.	M. J. Bowman, jr., LL. B.
Des Moines, Iowa.	Drake University College of Law.	Edward Baker Evans, LL. M.
Iowa City, Iowa.	State University of Iowa College of Law.	Dudley O. McGovney, LL. B.
Lawrence, Kans.	University of Kansas Law School.	James W. Green, A. M.
Topeka, Kans.	Washburn College School of Law.	Thomas W. Hughes, LL. D.
Lexington, Ky.	University of Kentucky College of Law.	William T. Lafferty, A. M.
Louisville, Ky.	Jefferson School of Law.	Judge Thomas R. Gordon.
Do.	State University Central Law School.	William C. Brown.
Do.	University of Louisville, Law Department.	Charles B. Seymour, LL. B.
Baton Rouge, La.	Louisiana State University, Law Department.	Robert L. Tullis, LL. B.
New Orleans, La.	Loyola University, Law School.	Judge John St. Paul.
Do.	Tulane University of Louisiana College of Law.	Charles P. Fenner, LL. B.
Bangor, Me.	University of Maine College of Law.	William E. Walz, LL. B., Litt. D.
Baltimore, Md.	University of Maryland Law School.	Henry D. Harlan, LL. D.
Boston, Mass.	Boston University Law School.	Homer Albers, LL. B.
Do.	Portia School of Law.	Arthur W. MacLean, J. M.
Do.	Suffolk Law School.	Gleason L. Archer, LL. B.
Do.	Boston Young Men's Christian Association Evening Law School.	Frank Palmer Speare.
Cambridge, Mass.	Harvard University Law School.	Roscoe Pound, Ph. D., LL. M., LL. D.
Ann Arbor, Mich.	University of Michigan Law School.	Henry M. Bates, Ph. B., LL. B.
Detroit, Mich.	Detroit College of Law (conducted by Detroit Young Men's Christian Association).	Benjamin D. Edwards, Ph. B.
Do.	University of Detroit Law School.	Judge George S. Hosmer.
Minneapolis, Minn.	University of Minnesota College of Law.	William R. Vance, LL. D.
Do.	Minnesota College of Law (Inc.).	Elmer C. Patterson, LL. B.
St. Paul, Minn.	St. Paul College of Law.	Judge George L. Bunn.
Jackson, Miss.	Millsaps College, Law School.	A. H. Whitfield, LL. D.
University, Miss.	University of Mississippi Department of Law.	Leonard J. Farley, LL. D.
Columbia, Mo.	University of Missouri School of Law.	Eldon R. James, S. J. D.
Kansas City, Mo.	Kansas City School of Law.	Edward D. Ellison.
St. Louis, Mo.	Benton College of Law.	George L. Corlis, LL. B.
Do.	City College of Law and Finance.	Eustace C. Wheeler, LL. B.
Do.	St. Louis University Institute of Law.	Paul Bakewell, LL. D.
Do.	Washington University, St. Louis Law School.	Richard L. Goode, LL. D.
Missoula, Mont.	University of Montana College of Law.	Albert N. Whitlock, LL. B.
Lincoln, Nebr.	University of Nebraska College of Law.	William Granger Hastings, A. B.
Omaha, Nebr.	Creighton University, Creighton College of Law.	Paul L. Martin, LL. B.
Do.	University of Omaha, Omaha School of Law.	Judge Alexander C. Troup.
Newark, N. J.	New Jersey Law School.	Richard D. Currier, LL. B.
Albany, N. Y.	Union University, Albany Law School.	J. Newton Fiero, LL. D.
Brooklyn, N. Y.	St. Lawrence University, Brooklyn Law School.	William P. Richardson, LL. D.
Buffalo, N. Y.	University of Buffalo, Buffalo Law School	Carlos C. Alden, J. D.
Ithaca, N. Y.	Cornell University College of Law.	Edwin H. Woodruff, LL. B.
New York, N. Y.	Columbia University School of Law.	Harlan F. Stone, LL. B.
Do.	Fordham University School of Law.	John Whalen, LL. D.
Do.	New York Law School.	George Chase, LL. B.
Do.	New York University Law School.	Frank H. Sommer, LL. M., J. D.
Syracuse, N. Y.	Syracuse University College of Law.	Frank R. Walker, LL. B.

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XII.—Presidents and Deans of Professional Schools—Continued.

2.—SCHOOLS OF LAW—Continued.

Location.	Name of institution.	President or dean.
Chapel Hill, N. C.	University of North Carolina Law Department.	Lucius Polk McGehee, A. B.
Durham, N. C.	Trinity College Law School	Samuel Fox Mordecai, LL. D.
Wake Forrest, N. C.	Wake Forrest College Law School	Needham Y. Gulley, M. A.
University, N. Dak.	University of North Dakota School of Law.	George F. Wells, LL. D.
Ada, Ohio	Ohio Northern University, Ada College of Law.	Jay P. Taggart, LL. B.
Cincinnati, Ohio	Cincinnati Law School	William Perry Rogers, LL. D.
Do	Young Men's Christian Association Night Law School.	Robert M. Ochiltree, LL. B.
Cleveland, Ohio	Baldwin-Wallace College, Cleveland Law School.	Willis Vickery, LL. D.
Do	Western Reserve University, Franklin T. Backus Law School.	Walter Thomas Dunmore, LL. B.
Columbus, Ohio	Ohio State University College of Law	John Jay Adams, LL. D.
Toledo, Ohio	St. John's University College of Law	John P. Manton.
Do	Toledo University College of Law	
Norman, Okla.	University of Oklahoma School of Law	Julian Charles Monnet, LL. B.
Eugene, Oreg.	Law School, University of Oregon	Edward W. Hope, Ph. D.
Salem, Oreg.	Willamette University College of Law	J. H. Van Winkle, LL. B.
Carlisle, Pa.	Dickinson College, Dickinson School of Law.	William Trickett, LL. D.
Philadelphia, Pa.	Temple University Law School	Francis Chapman, LL. D.
Do	University of Pennsylvania Department of Law.	William E. Mikell, B. S., LL. M.
Pittsburgh, Pa.	Duquesne University School of Law	Judge Joseph M. Swearingen, dean.
Do	University of Pittsburgh, Pittsburgh Law School.	John Douglas Shafer, LL. D.
Rio Piedras, Porto Rico.	University of Porto Rico College of Law	Fred K. Fleagle, Pd. D.
Columbia, S. C.	University of South Carolina Law School	John Peyre Thomas.
Vermilion, S. Dak.	University of South Dakota College of Law.	Marshall McKusick, LL. B.
Chattanooga, Tenn.	Chattanooga College of Law	Charles R. Evans, A. M.
Knoxville, Tenn.	University of Tennessee College of Law	Charles W. Turner, A. M.
Lebanon, Tenn.	Cumberland University Law School	Nathan Green, LL. D.
Memphis, Tenn.	University of West Tennessee College of Law.	M. V. Lynk, LL. B.
Nashville, Tenn.	Vanderbilt University Law School	John B. Keeble, LL. B.
Do	Walden University Law Department	W. H. Hodgkins, LL. B.
Austin, Tex.	University of Texas, Department of Law	John Charles Townes, LL. D.
Salt Lake City, Utah.	University of Utah College of Law	William H. Leary, J. D.
Charlottesville, Va.	University of Virginia, Department of Law	William Minor Lile, LL. D.
Lexington, Va.	Washington and Lee University School of Law.	Martin Parks Burks, LL. D.
Richmond, Va.	Richmond College School of Law	Walter Scott McNeill, Ph. D., LL. D.
Seattle, Wash.	University of Washington Law School	John T. Condon, LL. M.
Morgantown, W. Va.	West Virginia University College of Law.	Henry Craig Jones, LL. B.
Madison, Wis.	University of Wisconsin Law School	Harry Sanger Richards, LL. D.
Milwaukee, Wis.	Marquette University College of Law	Max Schoetz, A. B., LL. B.

3.—SCHOOLS OF MEDICINE.

[(H) designates the medical school as Homœopathic and (E) as Eclectic.]

Mobile, Ala.	University of Alabama, Department of Medicine.	Tucker H. Frazer.
Little Rock, Ark.	University of Arkansas, Medical Department.	Morgan Smith.
Loma Linda, Cal.	College of Medical Evangelists	Newton G. Evans, B. S., president.
Los Angeles, Cal.	Los Angeles Medical Department of the University of California.	George H. Kress, dean.
Do	University of Southern California, College of Physicians and Surgeons.	Charles W. Bryson, A. B.
Do	California Eclectic Medical College (E)	J. A. Munk.
Oakland, Cal.	Oakland College of Medicine and Surgery	Hayward G. Thomas.
San Francisco, Cal.	College of Physicians and Surgeons	L. W. Spriggs.
Do	Leland Stanford Junior University School of Medicine.	William Ophüls.
Do	University of California, Medical School	Herbert C. Moffitt.
Do	University of California, Hahnemann Medical College (H).	James W. Ward.
Boulder and Denver, Colo.	University of Colorado, School of Medicine.	Charles N. Meader, A. B.
New Haven, Conn.	Yale University, Department of Medicine	George Blumer.
Washington, D. C.	George Washington University, Medical School.	William C. Borden.
Do	Georgetown University, School of Medicine	George M. Kober, LL. D.

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XII.—Presidents and Deans of Professional Schools—Continued.

3.—SCHOOLS OF MEDICINE—Continued.

Location.	Name of institution.	President or dean.
Washington, D. C.	Howard University, School of Medicine	Edward A. Balloch, A. M.
Atlanta, Ga.	Atlanta Medical College, Department of Medicine, Emory University.	W. S. Elkin.
Augusta, Ga.	Medical Department, University of Georgia	William H. Doughty, jr., A. B.
Chicago, Ill.	Bennett Medical College, Loyola University	Maximilian J. Herzog, LL. D.
Do.	Chicago College of Medicine and Surgery	John S. Nagel, dean.
Do.	Chicago Hospital, College of Medicine	Charles Hill, B.Sc., M.S., president.
Do.	Hahnemann Medical College and Hospital (H).	Jos. P. Cobb.
Do.	Jenner Medical College	Frank C. Linden.
Do.	Northwestern University, Medical School	Arthur R. Edwards, M. A.
Do.	Rush Medical College, University of Chicago	John Milton Dodson.
Do.	University of Illinois, College of Medicine	Daniel A. K. Steele, LL. D., dean.
Bloomington and Indianapolis, Ind.	Indiana University School of Medicine	Charles P. Emerson, A. B.
Iowa City, Iowa.	State University of Iowa, College of Medicine.	Lee W. Dean, M. S.
Do.	State University of Iowa, Homœopathic Medical Department (H).	George Royal.
Rosedale and Lawrence, Kans.	University of Kansas, School of Medicine	Samuel J. Crumbine, dean; Merwin T. Sudler, associate dean.
Louisville, Ky.	University of Louisville, Medical Department.	Henry Enos Tuley.
New Orleans, La.	Tulane University of Louisiana, School of Medicine.	Isadore Dyer.
Brunswick and Portland, Me.	Bowdoin Medical School	Addison S. Thayer, A. B.
Baltimore, Md.	Johns Hopkins University, Medical Department.	J. Whitridge Williams, D. Sc.
Do.	University of Maryland, School of Medicine and College of Physicians and Surgeons.	J. M. H. Rowland.
Boston, Mass.	Harvard University, Medical School	Edward H. Bradford, dean.
Do.	Tufts College, Medical School	Charles F. Painter.
Do.	Boston University, School of Medicine (H).	John P. Sutherland.
Ann Arbor, Mich.	University of Michigan, Medical School	Victor C. Vaughan, LL. D.
Do.	University of Michigan, Homœopathic Medical School (H).	Wilbert B. Hinsdale, A. M.
Detroit, Mich.	Detroit College of Medicine and Surgery	Sidney T. Miller.
Minneapolis, Minn.	University of Minnesota, Medical School	E. P. Lyon, Ph. D.
University, Miss.	University of Mississippi, Medical Department.	Walter S. Leathers.
Columbia, Mo.	University of Missouri, School of Medicine.	Guy L. Noyes.
Kansas City, Mo.	Southwest School of Medicine and Hospital (H).	William Davis Foster.
St. Louis, Mo.	Medical School, National University of Arts and Sciences.	George Richter.
Do.	St. Louis University, School of Medicine	Hanau W. Loeb, A. M.
Do.	Washington University, Medical School	Philip A. Shaffer, Ph. D.
Lincoln and Omaha, Nebr.	University of Nebraska, College of Medicine	Irving S. Cutter, B. Sc.
Lincoln, Nebr.	Lincoln Medical College (E)	F. L. Wilweth.
Omaha, Nebr.	John A. Creighton Medical College	A. L. Muirhead, A. B., acting dean.
Hanover, N. H.	Dartmouth Medical School	John M. Gile, A. M.
Albany, N. Y.	Albany Medical College, Union University.	Thomas Ordway.
Brooklyn, N. Y.	Long Island College Hospital	Otto V. Huffman.
Buffalo, N. Y.	University of Buffalo, Medical Department.	Thomas H. McKee.
New York, N. Y.	Columbia University College of Physicians and Surgeons.	Samuel W. Lambert, A. M.
New York and Ithaca, N. Y.	Cornell University, Medical College	William M. Polk, LL. D.
New York, N. Y.	Fordham University, School of Medicine	William P. Healy.
Do.	University and Bellevue Hospital Medical College.	Samuel A. Brown, acting dean.
Do.	New York Homeopathic Medical College and Flower Hospital (H).	Royal S. Copeland, A. M.
Do.	New York Medical College and Hospital for Women (H).	Cornelia S. Brant.
Syracuse, N. Y.	Syracuse University, College of Medicine	John L. Heffron, Sc. D.
Chapel Hill, N. C.	University of North Carolina, School of Medicine.	Isaac H. Manning.
Raleigh, N. C.	Shaw University, Leonard Medical School.	George H. Stoddard, A. M.
Wake Forest, N. C.	Wake Forest College, School of Medicine	William L. Poteat, LL. D.
University, N. Dak.	University of North Dakota, School of Medicine.	Harley E. French, M. S.
Cincinnati, Ohio.	Ohio-Miami Medical College, University of Cincinnati.	Christian R. Holmes.
Do.	Eclectic Medical College (E)	Roller L. Thomas.
Cleveland, Ohio.	Western Reserve University, School of Medicine.	Carl A. Hamann.

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XII.—Presidents and Deans of Professional Schools—Continued.

3.—SCHOOLS OF MEDICINE—Continued.

Location.	Name of institution.	President or dean.
Columbus, Ohio	Ohio State University, College of Medicine.	E. F. McCampbell, Ph. D.
Do	Ohio State University, College of Homeopathic Medicine (H).	Claude A. Burrett, Ph. B.
Norman and Oklahoma City, Okla.	University of Oklahoma, School of Medicine.	Le Roy Long.
Portland, Oreg.	University of Oregon, Medical School	Kenneth A. J. Mackenzie, L.R.C.P., L. R. C. S.
Philadelphia, Pa.	Jefferson Medical College	Ross V. Patterson, subdean.
Do	Medico-Chirurgical College and Hospital; the Graduate School of Medicine of the University of Pennsylvania.	Seneca Egbert, A. M.
Do	Temple University, Department of Medicine.	Frank C. Hammond.
Do	Medical School of the University of Pennsylvania and the Jefferson Medical College of Philadelphia.	William Pepper.
Do	Woman's Medical College of Pennsylvania and Its Hospital.	Clara Marshall.
Do	Hahnemann Medical College and Hospital of Philadelphia (H).	W. A. Pearson.
Pittsburgh, Pa.	University of Pittsburgh School of Medicine.	Thomas S. Arbuthnot.
Charleston, S. C.	Medical College of the State of South Carolina.	Robert Wilson, jr.
Vermilion, S. Dak.	University of South Dakota, College of Medicine.	Christian P. Lommen.
Memphis, Tenn.	University of Tennessee, College of Medicine.	Herbert T. Brooks.
Do	University of West Tennessee, Medical Department.	M. V. Lynk, M. S.
Nashville, Tenn.	Vanderbilt University, Medical Department.	Lucius E. Burch, dean.
Do	Walden University, Meharry Medical College.	G. W. Hubbard, president.
Dallas, Tex.	Baylor University, Medical Department.	Edward H. Cary.
Fort Worth, Tex.	Fort Worth School of Medicine, Texas Christian University.	S. A. Woodward.
Galveston, Tex.	University of Texas, School of Medicine	William S. Carter.
Salt Lake City, Utah	University of Utah, School of Medicine	Perry G. Snow, B. A.
Burlington, Vt.	University of Vermont, College of Medicine.	Henry C. Tinkham, M. Sc.
Charlottesville, Va.	University of Virginia, Medical Department.	Theodore Hough.
Richmond, Va.	Medical College of Virginia	Stuart McGuire.
Morgantown, W. Va.	West Virginia University, School of Medicine.	John S. Simpson.
Madison, Wis.	University of Wisconsin, Medical School	Charles R. Bardeen.
Milwaukee, Wis.	Marquette University, Medical Department.	Louis F. Jermain.

4.—SCHOOLS OF DENTISTRY.

Los Angeles, Cal.	University of Southern California, College of Dentistry.	Lewis E. Ford.
San Francisco, Cal.	College of Physicians and Surgeons, Department of Dentistry.	Charles Boxton.
Do	University of California, College of Dentistry.	Guy S. Millberry.
Denver, Colo.	Colorado College of Dental Surgery, University of Denver.	H. A. Fynn.
Washington, D. C.	George Washington University, Department of Dentistry.	J. Roland Walton.
Do	Georgetown University, Dental Department.	Shirley W. Bowles.
Do	Howard University, Dental College	Edward A. Balloch, A. M.
Atlanta, Ga.	Atlanta Dental College	Claude Hughes.
Do	Southern Dental College	Sheppard W. Foster.
Chicago, Ill.	Chicago College of Dental Surgery, Valparaiso University.	Truman W. Brophy, LL. D.
Do	Northwestern University, Dental School	G. V. Black, Sc. D., LL. D.
Do	University of Illinois, College of Dentistry	Frederick B. Moorehead, A. B.
Indianapolis, Ind.	Indiana Dental College, University of Indianapolis.	Frederic R. Henshaw.
Valparaiso, Ind.	Valparaiso University, College of Dentistry	Truman W. Brophy.
Iowa City, Iowa	State University of Iowa, College of Dentistry.	Frank T. Breene.
Louisville, Ky.	Louisville College of Dentistry, Central University of Kentucky.	William E. Grant.
New Orleans, La.	Loyola School of Dentistry, Loyola University.	C. Victor Vignes.

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XII.—Presidents and Deans of Professional Schools—Continued.

4.—SCHOOLS OF DENTISTRY—Continued.

Location.	Name of institution.	President or dean.
New Orleans, La	School of Dentistry, Tulane University of Louisiana.	Wallace Wood, jr.
Baltimore, Md	Baltimore College of Dental Surgery	W. G. Foster.
Do	Baltimore Medical College, Dental Department.	J. W. Smith.
Do	University of Maryland, Dental Department.	Timothy O. Heatwole.
Boston, Mass	Harvard University, Dental School	Eugene Hanes Smith.
Do	Tufts College, Dental School	Charles F. Painter.
Ann Arbor, Mich	University of Michigan, College of Dental Surgery.	Nelville S. Hoff.
Minneapolis, Minn	University of Minnesota, College of Dentistry.	Alfred Owre, M. D.
Kansas City, Mo	Kansas City Dental College	Charles C. Allen.
Do	Western Dental College	R. J. Rinehart, secretary.
St. Louis, Mo	Barnes Dental College of National University of Arts and Sciences.	George H. Owen.
Do	St. Louis Dental College, St. Louis University.	James P. Harper.
Do	Washington University, Dental School	John H. Kennerly.
Lincoln, Nebr	Lincoln Dental College, associated with the University of Nebraska.	Wallace Clyde Davis.
Omaha, Nebr	Creighton University, College of Dentistry.	A. Hugh Hipple.
Jersey City, N. J	College of Jersey City, Department of Dentistry.	Herbert S. Sutphen.
Buffalo, N. Y	University of Buffalo, College of Dentistry.	Daniel H. Squire.
New York, N. Y	College of Dental and Oral Surgery of New York.	William Carr.
Do	New York College of Dentistry	Alfred R. Starr.
Cincinnati, Ohio	Cincinnati College of Dental Surgery, Ohio University.	G. S. Junkerman, A. M.
Do	Ohio College of Dental Surgery, Dental Department of Lebanon University.	H. T. Smith.
Cleveland, Ohio	Western Reserve University, Dental School.	Edward E. Belford.
Columbus, Ohio	Ohio State University, College of Dentistry	Harry M. Semans.
Portland, Oreg	North Pacific College of Dentistry	Herbert C. Miller.
Philadelphia, Pa	Medico-Chirurgical College, Department of Dentistry.	I. N. Broomell.
Do	Philadelphia Dental College, Temple University.	Simeon H. Guilford, A. M., Ph. D.
Do	Thomas W. Evans Museum and Dental Institute School of Dentistry University of Pennsylvania.	Edward C. Kirk, Sc. D.
Pittsburgh, Pa	University of Pittsburgh, School of Dentistry.	H. Edmund Friesell.
Memphis, Tenn	College of Dentistry, University of Tennessee.	Joseph A. Gardner.
Do	University of West Tennessee, Dental School.	M. V. Lynk.
Nashville, Tenn	Vanderbilt University, Dental Department.	Henry W. Morgan.
Do	Walden University, Meharry Dental College.	G. W. Hubbard, president.
Dallas, Tex	State Dental College	T. G. Bradford.
Houston, Tex	Texas Dental College	O. F. Gambati.
Richmond, Va	School of Dentistry, Medical College of Virginia.	J. A. C. Hoggan, chairman of faculty.
Milwaukee, Wis	Marquette University, Dental Department	Henry L. Banzhaf, B. S.

5.—SCHOOLS OF PHARMACY.

Auburn, Ala	Alabama Polytechnic Institute, Pharmacy Department.	L. S. Blake, M. S.
Birmingham, Ala	Birmingham Medical College, Department of Pharmacy.	A. R. Bliss, jr.
Mobile, Ala	University of Alabama, Department of Pharmacy.	Tucker H. Frazer.
Little Rock, Ark	Pharmacy Department, University of Arkansas.	Morgan Smith.
Los Angeles, Cal	University of Southern California, College of Pharmacy.	Laird J. Stabler, M. S.
San Francisco, Cal	California College of Pharmacy, University of California.	Franklin T. Green.
Do	College of Physicians and Surgeons, Department of Pharmacy.	John Henry Flint.
Boulder, Colo	University of Colorado, College of Pharmacy	Homer C. Washburn.

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XII.—Presidents and Deans of Professional Schools—Continued.

5.—SCHOOLS OF PHARMACY—Continued.

Location.	Name of institution.	President or dean.
Washington, D. C.	George Washington University, National College of Pharmacy.	H. E. Kalusowski.
Do.	Howard University, College of Pharmacy.	Edward A. Balloch, A. M.
Athens, Ga.	University of Georgia, School of Pharmacy.	Robert C. Wilson, head of department.
Atlanta, Ga.	Atlanta College of Pharmacy.	George F. Payne.
Do.	Southern College of Pharmacy.	R. C. Hood.
Macon, Ga.	Mercer University, School of Pharmacy.	C. A. Struby.
Chicago, Ill.	Central States College of Pharmacy, Loyola University.	George L. Secord.
Do.	Northwestern University, School of Pharmacy.	John Harper Long, Sc. D.
Do.	University of Illinois, School of Pharmacy.	William B. Day, acting dean.
Angola, Ind.	Tri-State College of Pharmacy.	C. C. Sherrard.
Indianapolis, Ind.	Indianapolis College of Pharmacy.	Ferd. A. Mueller.
Lafayette, Ind.	School of Pharmacy, Purdue University.	Charles B. Jordan, B. S.
Notre Dame, Ind.	University of Notre Dame, School of Pharmacy.	Robert Lee Green.
Valparaiso, Ind.	Valparaiso University, Department of Pharmacy.	G. D. Timmons, B. S.
Des Moines, Iowa.	Highland Park College of Pharmacy and Chemistry.	Elbert O. Kagy.
Iowa City, Iowa.	State University of Iowa, College of Pharmacy.	Wilber J. Teeters, M. S.
Lawrence, Kans.	University of Kansas, School of Pharmacy.	Lucius E. Sayre, M. S.
Louisville, Ky.	Louisville College of Pharmacy.	T. A. Luman.
New Orleans, La.	New Orleans College of Pharmacy (affiliated with Loyola University).	Philip Asher.
Do.	Tulane University of Louisiana, School of Pharmacy.	Isadore Dyer.
Orono, Me.	University of Maine, Department of Pharmacy.	William A. Jarrett.
Baltimore, Md.	Department of Pharmacy, University of Maryland.	Charles Caspari, jr.
Boston, Mass.	Massachusetts College of Pharmacy.	Theodore J. Bradley.
Ann Arbor, Mich.	University of Michigan, College of Pharmacy.	J. O. Schlotterbeck.
Big Rapids, Mich.	Ferris Institute, Pharmacy Department.	W. N. Ferris.
Minneapolis, Minn.	University of Minnesota, College of Pharmacy.	Frederick J. Wulling, LL. M.
University, Miss.	University of Mississippi, School of Pharmacy.	Henry M. Faser.
Kansas City, Mo.	Kansas City College of Pharmacy and Natural Sciences.	David V. Whitney.
St. Louis, Mo.	School of Pharmacy of National University of Arts and Sciences.	George M. Heath, B. S.
Missoula, Mont.	University of Montana, School of Pharmacy.	Charles E. F. Mollet, dean.
Lincoln, Nebr.	University of Nebraska, College of Pharmacy.	Rufus A. Lyman.
Omaha, Nebr.	Creighton University, Department of Pharmacy.	I. Curtis Arledge.
Jersey City, N. J.	College of Jersey City, Department of macy.	Philemon E. Hommell.
Newark, N. J.	New Jersey College of Pharmacy.	Joseph Koppel.
Albany, N. Y.	Albany College of Pharmacy, Union University.	Willis G. Tucker.
Brooklyn, N. Y.	Brooklyn College of Pharmacy.	William C. Anderson.
Buffalo, N. Y.	Buffalo College of Pharmacy, University of Buffalo.	Willis G. Gregory.
New York, N. Y.	College of Pharmacy of the City of New York, Columbia University.	Henry H. Rusby.
Do.	Fordham University, College of Pharmacy.	Jacob Diner, dean.
Chapel Hill, N. C.	University of North Carolina, Department of Pharmacy.	Edward V. Howell, A. B.
Raleigh, N. C.	Leonard School of Pharmacy, Shaw University.	George H. Stoddard, A. M.
Agricultural College, N. Dak.	North Dakota Agricultural College, School of Pharmacy.	E. F. Ladd, B. S.
Ada, Ohio.	Ohio Northern University, School of Pharmacy.	David C. Mohler, dean.
Cincinnati, Ohio.	Cincinnati College of Pharmacy.	Julius H. Eichberg.
Cleveland, Ohio.	Cleveland School of Pharmacy, Western Reserve University.	William C. Alpers, Sc. D.
Columbus, Ohio.	Ohio State University, College of Pharmacy.	George B. Kauffman.
Toledo, Ohio.	Toledo University, College of Pharmacy.	William McKendre Reed.
Norman, Okla.	State University of Oklahoma, School of Pharmacy.	Charles H. Stocking.
Corvalis, Oreg.	Oregon Agricultural College, Department of Pharmacy.	Adolph Zeifle, B. S., head of department.
tland, Oreg.	North Pacific College of Pharmacy.	Herbert C. Miller.

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XII.—Presidents and Deans of Professional Schools—Continued.

5.—SCHOOLS OF PHARMACY—Continued.

Location.	Name of institution.	President or dean.
Philadelphia, Pa.	Medico-Chirurgical College, Department of Pharmacy.	Julius W. Sturmer.
Do.	Philadelphia, College of Pharmacy.	Joseph P. Remington.
Do.	Temple University, Department of Pharmacy.	John R. Minehart.
Pittsburgh, Pa.	Pittsburgh College of Pharmacy, University of Pittsburgh.	Julius A. Koch.
Rio Piedras, Porto Rico.	University of Porto Rico, College of Pharmacy.	Fred K. Fleagle, Pd. D.
Providence, R. I.	Rhode Island College of Pharmacy and Allied Sciences.	Edwin E. Calder.
Charleston, S. C.	Medical College of State of South Carolina, Department of Pharmacy.	Robert Wilson, jr.
Brookings, S. Dak.	South Dakota State College of Agriculture and Mechanic Arts, Department of Pharmacy.	B. T. Whitehead, professor.
Memphis, Tenn.	School of Pharmacy of University of Tennessee.	Herbert T. Brooks.
Do.	University of West Tennessee, College of Pharmacy.	M. V. Lynk.
Nashville, Tenn.	Vanderbilt University, School of Pharmacy.	J. T. McGill.
Do.	Walden University, Meharry College of Pharmacy.	G. W. Hubbard, president.
Dallas, Tex.	Baylor University, College of Pharmacy.	Edward H. Cary, M. D. (acting dean).
Galveston, Tex.	University of Texas, School of Pharmacy.	William S. Carter.
Richmond, Va.	School of Pharmacy, Medical College of Virginia.	A. Bolenbaugh, B. S., chairman of faculty.
Pullman, Wash.	State College of Washington, School of Pharmacy.	Asa F. Maxwell.
Seattle, Wash.	University of Washington, College of Pharmacy.	Charles W. Johnson, B. S.
Morgantown, W. Va.	Department of Pharmacy, West Virginia University.	John N. Simpson.
Madison, Wis.	University of Wisconsin course in Pharmacy.	Edward Kremers.
Milwaukee, Wis.	Marquette University, Pharmacy Department.	F. C. Mayer.

6.—SCHOOLS OF VETERINARY MEDICINE.

Auburn, Ala.	Alabama Polytechnic Institute, College of Veterinary Medicine.	C. A. Cary.
San Francisco, Cal.	San Francisco Veterinary College.	Charles Keane.
Fort Collins, Colo.	Colorado Agricultural College, Division of Veterinary Medicine.	George H. Glover.
Washington, D. C.	George Washington University, College of Veterinary Medicine.	David E. Buckingham.
Do.	United States College of Veterinary Surgeons.	Hulbert Young.
Moscow, Idaho.	University of Idaho, Department of Veterinary Science.	Albert R. Hahner.
Chicago, Ill.	Chicago Veterinary College.	Joseph Hughes.
Do.	McKillip Veterinary College.	Charles Frazier, dean.
Indianapolis, Ind.	Indiana Veterinary College.	George H. Roberts.
Terre Haute, Ind.	Terre Haute Veterinary College.	C. I. Fleming, dean.
Ames, Iowa.	Iowa State College, Division of Veterinary Medicine.	Charles H. Stange.
Manhattan, Kans.	Kansas State Agricultural College, Veterinary Department.	E. S. Schoenleber, professor.
East Lansing, Mich.	Michigan Agricultural College, Veterinary Division.	Richard P. Lyman.
Grand Rapids, Mich.	Grand Rapids Veterinary College.	H. L. Schuh.
Kansas City, Mo.	Kansas City Veterinary College.	S. Stewart.
St. Joseph, Mo.	St. Joseph Veterinary College.	Burton R. Rogers.
Ithaca, N. Y.	New York State Veterinary College at Cornell University.	Veranus A. Moore.
New York, N. Y.	New York American Veterinary College, New York University.	William J. Coates.
Agricultural College, N. Dak.	North Dakota Agricultural College, School of Veterinary Medicine and Surgery.	L. van Es.
Cincinnati, Ohio.	Cincinnati Veterinary College.	Louis P. Cook.
Columbus, Ohio.	Ohio State University College of Veterinary Medicine.	David S. White.
Philadelphia, Pa.	University of Pennsylvania, School of Veterinary Medicine.	Louis A. Klein.
Pullman, Wash.	Washington State College, Veterinary Department.	Sofus B. Nelson.

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XIII.—Principals of Normal and Kindergarten Training Schools.

1.—PUBLIC NORMAL SCHOOLS.[1]

Location.	Name of institution.	For men, for women, or coeducational.	Principal.
ALABAMA.			
Daphne	State Normal School	Coed.	H. H. Holmes.
Florence	....do	Coed.	Henry J. Willingham.
Jacksonville	....do	Coed.	C. W. Daugette.
Livingston	....do	Women.	George W. Brock.
Montgomery	State Colored Normal School	Coed.	J. W. Beverly.
Moundville	State Normal School	Coed.	Granville A. Young.
Normal	Agricultural and Mechanical College for Negroes.	Coed.	Walter S. Buchanan.
Troy	State Normal School	Coed.	E. M. Shackelford.
Tuskegee	Tuskegee Normal and Industrial Institute (colored).	Coed.	Robert R. Moton.
ARIZONA.			
Flagstaff	Northern Arizona Normal School	Coed.	Rudolph H. H. Blome.
Tempe	Tempe Normal School of Arizona	Coed.	A. J. Matthews.
ARKANSAS.			
Conway	Arkansas State Normal School	Coed.	John J. Doyne.
Pine Bluff	Branch Normal College (colored)	Coed.	F. T. Venegar.
CALIFORNIA.			
Arcata	Humboldt State Normal School	Coed.	N. B. Van Matre.
Chico	State Normal School	Coed.	Allison Ware.
Fresno	....do	Coed.	C. L. McLane.
*Los Angeles	....do	Coed.	Jesse F. Millspaugh.
San Diego	....do	Coed.	Edward L. Hardy.
*San Francisco	....do	Coed.	Frederick Burk.
*San Jose	....do	Coed.	Morris Elmer Dailey.
Santa Barbara	State Normal School of Manual Arts and Home Economics.	Coed.	Frank H. Ball.
COLORADO.			
*Gunnison	Colorado State Normal School	Coed.	James H. Kelley.
CONNECTICUT.			
Bridgeport	Bridgeport City Normal School	Coed.	Edward E. Cortright.
Danbury	State Normal Training School	Coed.	John R. Perkins.
*New Britain	....do	Coed.	Marcus White.
New Haven	....do	Coed.	Arthur B. Morrill.
Willimantic	....do	Coed.	Henry T. Burr.
DISTRICT OF COLUMBIA.			
*Washington	J. Ormond Wilson Normal School	Coed.	Anne M. Goding.
* Do	Myrtilla Miner Normal School (colored).	Coed.	Lucy E. Moten.
GEORGIA.			
Athens	State Normal School	Coed.	Jere M. Pound.
Milledgeville	Georgia Normal and Industrial College	Women.	Marvin M. Parks.
Valdosta	Southern Georgia State Normal College	Women.	R. H. Powell.
IDAHO.			
Albion	State Normal School	Coed.	George A. Axline.
Lewiston	....do	Coed.	Oliver M. Elliott.
ILLINOIS.			
Carbondale	Southern Illinois State Normal University.	Coed.	D. B. Parkinson.
Charleston	Eastern Illinois State Normal School	Coed.	Livingston C. Lord.
*Chicago	Chicago Normal School	Coed.	Wm. B. Owen.
De Kalb	Northern Illinois State Normal School	Coed.	John W. Cook.
Macomb	Western Illinois State Normal School	Coed.	Walter P. Morgan.
*Normal	Illinois State Normal University	Coed.	David Felmley.
INDIANA.			
Fort Wayne	Normal Training School	Coed.	Flora Wilber.
Indianapolis	Indianapolis Normal School	Coed.	Marion Lee Webster.
Terre Haute	Indiana State Normal School	Coed.	William W. Parsons.

[1] Institutions starred (*) have kindergarten training departments.

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XIII.—Principals of Normal and Kindergarten Training Schools—Continued.

1.—PUBLIC NORMAL SCHOOLS—Continued.

Location.	Name of institution.	For men, for women, or coeducational.	Principal.
IOWA.			
Shenandoah	Western Normal College	Coed.	C. F. Garrett.
KANSAS.			
*Emporia	State Normal School	Coed.	Thomas W. Butcher.
Hays	Fort Hays Kansas Normal School	Coed.	W. A. Lewis.
*Pittsburg	State Manual Training Normal School	Coed.	W. A. Brandenburg.
KENTUCKY.			
Bowling Green	Western Kentucky State Normal School	Coed.	H. H. Cherry.
Frankfort	State Normal and Industrial Institute for Colored Persons.	Coed.	Green P. Russell.
*Louisville	Louisville Normal School	Coed.	Elizabeth Breckinridge.
Richmond	Eastern Kentucky State Normal School	Coed.	T. J. Coates.
LOUISIANA.			
Natchitoches	Louisiana State Normal School	Coed.	Victor L. Roy.
*New Orleans	New Orleans Normal School	Coed.	Margaret C. Hanson.
MAINE.			
Castine	Eastern State Normal School	Coed.	Albert F. Richardson.
Farmington	Farmington State Normal School	Coed.	Wilbert G. Mallett.
Fort Kent	Madawaska Training School	Coed.	Mary P. Nowland.
Gorham	Western State Normal School	Coed.	Walter E. Russell.
Lewiston	Lewiston Normal Training School	Coed.	Adelaide V. Finch.
Machias	Washington State Normal School	Coed.	William L. Powers.
Presque Isle	Aroostook State Normal School	Coed.	San Lorenzo Merriman.
MARYLAND.			
Baltimore	Baltimore Teachers Training School	Coed.	Norman W. Cameron.
Do	Colored Training School	Coed.	Joseph H. Lockerman.
Bowie	Maryland State Normal and Industrial School (colored).	Coed.	D. S. S. Goodloe.
Frostburg	Maryland State Normal School	Coed.	Edward F. Webb.
Towson	do	Coed.	Sarah E. Richmond.
MASSACHUSETTS.			
*Boston	Boston Normal School	Coed.	Wallace C. Boyden.
Do	Massachusetts Normal Art School	Coed.	James F. Hopkins.
*Bridgewater	State Normal School	Coed.	Arthur C. Boyden.
*Fitchburg	do	Coed.	John G. Thompson.
Framingham	do	Coed.	Henry Whittemore.
Hyannis	do	Coed.	Wm. A. Baldwin.
Lowell	do	Coed.	John J. Mahoney.
North Adams	do	Coed.	Frank F. Murdock.
Salem	do	Coed.	Joseph Asbury Pitman.
Westfield	do	Coed.	Clarence A. Brodeur.
*Worcester	do	Coed.	Wm. B. Aspinwall.
MICHIGAN.			
*Detroit	Wales C. Martindale Normal Training School.	Coed.	John F. Thomas.
*Kalamazoo	Western State Normal School	Coed.	Dwight B. Waldo.
*Marquette	Northern State Normal School	Coed.	James H. Kaye.
*Mount Pleasant	Central State Normal School	Coed.	Charles T. Grawn.
*Ypsilanti	Michigan State Normal College	Coed.	Charles McKenny.
MINNESOTA.			
*Duluth	State Normal School	Coed.	E. W. Bohannon.
*Mankato	do	Coed.	Chas. H. Cooper.
*Moorhead	do	Coed.	Frank A. Weld.
St. Cloud	do	Coed.	J. C. Brown.
*St. Paul	St. Paul Normal School	Coed.	L. L. Everly.
*Winona	State Normal School	Coed.	Guy E. Maxwell.
MISSISSIPPI.			
Hattiesburg	Mississippi Normal College	Coed.	Joe Cook.

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XIII.—Principals of Normal and Kindergarten Training Schools—Continued.

1.—PUBLIC NORMAL SCHOOLS—Continued.

Location.	Name of institution.	For men, for women, or coeducational.	Principal.
MISSOURI.			
Cape Girardeau	State Normal School	Coed.	W. S. Dearmont.
Jefferson City	Lincoln Institute (colored)	Coed.	Benjamin F. Allen.
Kirksville	State Normal School	Coed.	John R. Kirk.
*Maryville	do	Coed.	Ira Richardson.
*St. Louis	Harris Teachers College	Women.	John W. Withers.
Springfield	State Normal School	Coed.	Wm. T. Carrington.
*Warrensburg	do	Coed.	Eldo L. Hendricks.
MONTANA.			
Dillon	Montana State Normal School	Coed.	J. E. Monroe.
NEBRASKA.			
Chadron	State Normal School	Coed.	Joseph Sparks.
*Kearney	do	Coed.	George S. Dick.
*Peru	do	Coed.	D. W. Hayes.
*Wayne	do	Coed.	U. S. Conn.
NEW HAMPSHIRE.			
Keene	State Normal School	Coed.	Wallace E. Mason.
Plymouth	do	Coed.	Ernest L. Silver.
NEW JERSEY.			
Jersey City	Teachers' Training School	Coed.	Joseph H. Brensinger.
*Montclair	New Jersey State Normal School	Coed.	Chas. S. Chapin.
*Newark	do	Coed.	W. S. Willis.
Paterson	Paterson Normal Training School.	Coed.	Frank W. Smith.
*Trenton	New Jersey State Normal School	Coed.	James M. Green.
NEW MEXICO.			
El Rito	Spanish-American Normal School	Coed.	Ottway C. Zingg.
East Las Vegas	New Mexico Normal University	Coed.	Frank H. H. Roberts.
Silver City	New Mexico Normal School	Coed.	E. L. Enloe.
NEW YORK.			
*Albany	Teachers' Training School	Coed.	Thomas S. O'Brien.
Brockport	State Normal and Training School	Coed.	Alfred C. Thompson.
*Brooklyn	Training School for Teachers	Coed.	Emma L. Johnston.
*Buffalo	State Normal School	Coed.	Daniel Upton.
Cohoes	Cohoes Training School	Coed.	Harriet L. Knapp.
*Cortland	State Normal and Training School	Coed.	Harry De W. De Groat.
*Fredonia	do	Coed.	Myron T. Dana.
*Geneseo	Geneseo State Normal School	Coed.	James V. Sturges.
Jamaica	Training School for Teachers	Coed.	Archibald C. McLachlan.
*New Paltz	State Normal School	Coed.	John C. Bliss.
*New York	New York Training School for Teachers.	Coed.	Hugo Newman.
*Oneonta	State Normal School	Coed.	Percy I. Bugbee.
*Oswego	Oswego State Normal and Training School.	Coed.	James G. Riggs.
Plattsburg	State Normal School	Coed.	Geo. K. Hawkins.
*Potsdam	State Normal and Training School	Coed.	Jeremiah M. Thompson.
*Rochester	City Normal School	Coed.	Edward J. Bonner.
Schenectady	Teachers' Training School	Coed.	Granville B. Jeffers
*Syracuse	Syracuse Training School for Teachers.	Coed.	J. Edward Banta.
Watertown	Watertown Training School	Coed.	E. Marie Walradt.
Yonkers	Yonkers Training School for Teachers	Coed.	Eleanor M. Taylor.
NORTH CAROLINA.			
Cullowhee	Cullowhee Normal and Industrial School.	Coed.	A. C. Reynolds.
Elizabeth City	State Colored Normal School	Coed.	P. W. Moore.
Fayetteville	do	Coed.	E. E. Smith.
Greenville	East Carolina Teachers' Training School.	Coed.	Robt. H. Wright.
Greensboro	State Normal and Industrial College	Women.	Julius I. Foust.
Pembroke	Indian Normal College	Coed.	H. A. Neal.
Winston	Slater Industrial and State Normal School (colored).	Coed.	S. G. Atkins.

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XIII.—Principals of Normal and Kindergarten Training Schools—Continued.

1.—PUBLIC NORMAL SCHOOLS—Continued.

Location.	Name of institution.	For men, for women, or coeducational.	Principal.
NORTH DAKOTA.			
Ellendale	North Dakota State Normal and Industrial School.	Coed	Ryland M. Black.
Mayville	State Normal School	Coed	Thos. A. Hillyer.
Minot	do	Coed	A. G. Crane.
*Valley City	do	Coed	Geo. A. McFarland.
OHIO.			
Akron	Perkins Normal School	Coed	James C. Bay.
Athens	State Normal College	Coed	John J. Richeson.
Bowling Green	State Normal College	Coed	Homer B. Williams.
Cleveland	Cleveland Normal Training School	Coed	R. W. Himelick.
Columbus	Columbus Normal School	Coed	Margaret W. Sutherland.
Dayton	Dayton Normal School	Coed	Grace A. Greene.
*Kent	State Normal College	Coed	John E. McGilvrey.
OKLAHOMA.			
Ada	East Central State Normal School	Coed	J. M. Gordon.
Alva	Northwestern State Normal School	Coed	J. W. Graves.
Durant	Southeastern State Normal School	Coed	T. D. Brooks.
Edmond	Central State Normal School	Coed	Grant B. Grumbine.
Langston	Colored Agricultural and Normal University.	Coed	J. B. McCutcheon.
Tahlequah	Northeastern State Normal School	Coed	G. W. Gable.
Weatherford	Southwestern State Normal School	Coed	J. B. Eskridge.
OREGON.			
Monmouth	State Normal School	Coed	John H. Ackerman.
PENNSYLVANIA.			
Bloomsburg	State Normal School	Coed	D. J. Waller, jr.
California	Southwestern State Normal School	Coed	Walter S. Hertzog.
Clarion	State Normal School	Coed	Amos P. Reese.
East Stroudsburg	do	Coed	E. L. Kemp.
Edinboro	do	Coed	Frank E. Baker.
Erie	Erie Normal Training School	Coed	Celestia J. Hershey.
Harrisburg	Teachers Training School	Coed	Anne U. Wert.
Indiana	State Normal School	Coed	James E. Ament.
Kutztown	Keystone State Normal School	Coed	A. C. Rothermel.
*Lock Haven	Central State Normal School	Coed	Charles Lose.
Mansfield	State Normal School	Coed	Wm. R. Straughn.
Millersville	do	Coed	P. Munroe Harbold.
*Philadelphia	Philadelphia Normal School for Girls	Women	J. Eugene Baker.
Do	Philadelphia School of Pedagogy	Men	Francis B. Brandt.
Reading	Normal and Training School for Girls	Women	Martha A. Seiders.
Shippensburg	Cumberland Valley State Normal School	Coed	Ezra Lehman.
Slippery Rock	State Normal School	Coed	Albert E. Maltby.
West Chester	do	Coed	George M. Phillips.
RHODE ISLAND.			
*Providence	Rhode Island State Normal School	Coed	John L. Alger.
SOUTH CAROLINA.			
Orangeburg	Colored Normal, Industrial, Agricultural, and Mechanical College of South Carolina.	Coed	Robert S. Wilkinson.
*Rockhill	Winthrop Normal and Industrial College	Women	David B. Johnson.
SOUTH DAKOTA.			
Aberdeen	Northern Normal and Industrial School	Coed	Willis E. Johnson.
*Madison	State Normal School	Coed	John W. Heston.
Spearfish	do	Coed	Fayette L. Cook.
Springfield	do	Coed	Gustav G. Wenzlaff.
TENNESSEE.			
Johnson City	East Tennessee State Normal School	Coed	Sidney G. Gilbreath.
Memphis	West Tennessee State Normal School	Coed	John W. Brister.
Murfreesboro	Middle Tennessee State Normal School	Coed	R. L. Jones.
Nashville	State Agricultural and Industrial Normal School for Negroes.	Coed	William J. Hale.

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XIII.—Principals of Normal and Kindergarten Training Schools—Continued.

1.—PUBLIC NORMAL SCHOOLS—Continued.

Location.	Name of institution.	For men, for women, or coeducational.	Principal.
TEXAS.			
Canyon	West Texas State Normal College	Coed.	R. B. Cousins.
Denton	North Texas State Normal College	Coed.	W. H. Bruce.
Huntsville	Sam Houston State Normal Institute	Coed.	H. F. Estill.
Prairie View	Prairie View State Normal and Industrial College (colored).	Coed.	I. M. Terrell.
San Marcos	Southwest Texas State Normal School	Coed.	C. E. Evans.
VERMONT.			
Castleton	State Normal School	Coed.	Charles A. Adams.
Johnson	....do	Coed.	Archibald G. Peaks.
VIRGINIA.			
East Radford	State Normal School for Women	Women.	John P. McConnell
*Farmville	....do	Women.	Joseph L. Jarman
Fredericksburg	State Normal and Industrial School for Women.	Women.	E. H. Russell.
Hampton	Hampton Normal and Agricultural Institute (colored).	Coed.	H. B. Frissell.
*Harrisonburg	State Normal and Industrial School for Women.	Women.	Julian A. Burruss.
Petersburg	Virginia Normal and Industrial Institute (colored).	Coed.	John M. Gandy.
WASHINGTON.			
Bellingham	State Normal School	Coed.	George W. Nash.
Cheney	....do	Coed.	N. D. Showalter.
*Ellensburg	....do	Coed.	George H. Black.
WEST VIRGINIA.			
Athens	Concord State Normal School	Coed.	L. B. Hill.
Fairmont	State Normal School	Coed.	Joseph Rosier.
Glenville	....do	Coed.	
Huntington	Marshall College, State Normal School	Coed.	O. I. Woodley.
Institute	West Virginia Collegiate Institute (colored).	Coed.	Byrd Prillerman.
Shepherdstown	Shepherd College, State Normal School	Coed.	Thomas C. Miller.
West Liberty	State Normal School	Coed.	John C. Shaw.
WISCONSIN.			
Algoma	Door-Kewaunee County Training School	Coed.	J. A. Eichinger.
Alma	Buffalo County Training School	Coed.	H. H. Liebenberg.
Antigo	Langlade County Training School	Coed.	W. E. Switzer.
Berlin	Green Lake County Training School	Coed.	C. D. Lamberton.
Columbus	Columbia County Training School	Coed.	S. M. Thomas.
Eau Claire	Eau Claire County Training School	Coed.	F. E. Jaastad.
Gays Mills	Crawford County Training School	Coed.	G. E. Pratt.
Grand Rapids	Wood County Training School	Coed.	M. H. Jackson.
Janesville	Rock County Training School	Coed.	Frank J. Lowth.
La Crosse	State Normal School	Coed.	Fassett A. Cotton.
Ladysmith	Rusk County Training School	Coed.	R. H. Burns.
Manitowoc	Manitowoc County Training School	Coed.	Fred Christiansen.
Marinette	Marinette County Training School	Coed.	A. M. Olson.
Medford	Taylor County Training School	Coed.	J. H. Wheelock.
Menomonie	Dunn County Training School	Coed.	G. L. Bowman.
Do	Stout Institute	Coed.	L. D. Harvey.
Merrill	Lincoln County Training School	Coed.	W. A. Clark.
*Milwaukee	State Normal School	Coed.	Carroll G. Pearse.
Monroe	Green County Training School	Coed.	C. H. Deitz.
New London	Waupaca County Training School	Coed.	C. B. Stanley.
Oshkosh	State Normal School	Coed.	John A. H. Keith.
Phillips	Price County Training School	Coed.	D. A. Swartz.
Platteville	State Normal School	Coed.	Asa M. Royce.
Reedsburg	Sauk County Training School	Coed.	W. E. Smith.
Rhinelander	Oneida County Training School	Coed.	B. M. Dresden.
Rice Lake	Barren County Training School	Coed.	George M. Snodgrass.
Richland Center	Richland County Training School	Coed.	A. A. Thomson.
River Falls	State Normal School	Coed.	James W. Crabtree.
St. Croix Falls	Polk County Training School	Coed.	C. W. Monty.
South Kaukauna	Outagamie County Training School	Coed.	John E. Hale.
Stevens Point	State Normal School	Coed.	John F. Sims.
*Superior	Superior State Normal School	Coed.	V. E. McCaskell.

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XIII.—Principals of Normal and Kindergarten Training Schools—Continued.

1.—PUBLIC NORMAL SCHOOLS—Continued.

Location.	Name of institution.	For men, for women, or coeducational.	Principal.
WISCONSIN—continued.			
Viroqua	Vernon County Training School	Coed	A. E. Smith.
Wausau	Marathon County Training School	Coed	O. E. Wells
Wautoma	Waushara County Training School	Coed	G. E. Dafoe.
Whitewater	State Normal School	Coed	Albert H. Yoder.

2.—PRIVATE NORMAL SCHOOLS.

Pea Ridge, Ark	Pea Ridge Masonic College	Coed	S. C. Parish.
Denver, Colo	Denver Normal and Preparatory School	Coed	Fred Dick.
New Haven, Conn	New Haven Normal School of Gymnastics.	Coed	Ernst H. Arnold.
Chicago, Ill	American College of Physical Education	Coed	Morey A. Wood.
Oak Park, Ill	Concordia Teachers College	Coed	W. C. Kohn.
Angola, Ind	Tri-State College	Coed	Littleton M. Sniff.
Danville, Ind	Central Normal College	Coed	J. W. Laird.
Indianapolis, Ind	Teachers College of Indianapolis	Women	Mrs. Eliza A. Blaker.
Do	Normal College of the North American Gymnasium Union.	Coed	Emil Rath.
Marion, Ind	Marion Normal Institute	Coed	A. Jones.
Muncie, Ind	Muncie National Institute	Coed	M. D. Kelly.
Bloomfield, Iowa	Southern Iowa Normal School	Coed	Harry W. Christy.
Lexington, Ky	Chandler Normal School (colored)	Coed	Frederick J. Werking.
Louisa, Ky	Kentucky Normal College	Coed	Walter M. Byington.
Boston, Mass	American School of Physical Education	Women	Mary R. Mulliner.
Do	Boston Normal School of Gymnastics	Coed	
Do	Posse Normal School of Gymnastics	Coed	Hartvig Nissen.
Do	Sloyd Training School	Coed	Gustaf Larsson.
Cambridge, Mass	Sargent Normal School of Physical Education.	Women	Dudley A. Sargent.
Battle Creek, Mich	Normal School of Physical Education	Coed	Frank J. Born.
Madison, Minn	Lutheran Normal School	Coed	K. Lokensgard.
New Ulm, Minn	Dr. Martin Luther College	Coed	A. Ackerman.
Santee, Nebr	Santee Normal Training School (Indian)	Coed	Alfred L. Riggs.
Franklinton, N. C	Albion Academy (colored)	Coed	John A. Savage.
Raleigh, N. C	St. Augustine's School (colored)	Coed	A. B. Hunter.
Woodville, Ohio	Woodville Lutheran Normal School	Coed	K. Hemminghaus.
Cheyney, Pa	Cheyney Training School (colored)	Coed	Leslie P. Hill.
Philadelphia, Pa	Gratz College (Hebrew Normal)	Coed	Henry M. Speaker.
Charleston, S. C	Avery Normal Institute (colored)	Coed	I. Newton Owen.
Sioux Falls, S. Dak	Lutheran Normal School	Coed	Z. J. Ordal.
Memphis, Tenn	Le Moyne Normal Institute (colored)	Coed	Edgar Clippinger.
Morristown, Tenn	Morristown Normal and Industrial College (colored).	Coed	Judson S. Hill.
Commerce, Tex	East Texas Normal College	Coed	W. L. Mayo.
Harpers Ferry, W. Va	Storer College (colored)	Coed	Henry T. McDonald.
Smoot, W. Va	Greenbrier Normal School	Coed	L. O. Haynes.
Milwaukee, Wis	National German-American Teachers' Seminary.	Coed	Max Griebsch.
St. Francis, Wis	Catholic Normal School	Men	J. M. Kasel.

3.—KINDERGARTEN TRAINING SCHOOLS.

(For kindergarten departments in normal schools see names of institutions starred (*) in list 1.)

Location.	Name of institution.	Principal.
Birmingham, Ala	Kindergarten Department, Training School for Teachers.	Agnes M. Wilson.
Mobile, Ala	Mobile Kindergarten Training School	A. Elizabeth Johnston.
Berkeley, Cal	Barnard Kindergarten Training School	Grace Everett Barnard.
San Francisco, Cal	Golden Gate Free Kindergarten Normal School[1]	Anna M. Stovall.
Pasadena, Cal	Broadoaks Kindergarten Training School	Ada May Brooks.
Greeley, Colo	Kindergarten Department, the State Teachers College.	Mildred Julian.
Bridgeport, Conn	Froebel Normal Kindergarten-Primary Training School.	Mary C. Mills.

[1] Has become a department in State Normal School at San Francisco.

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XIII.—Principals of Normal and Kindergarten Training Schools—Continued.

3.—KINDERGARTEN TRAINING SCHOOLS—Continued.

Location.	Name of institution.	Principal.
Bridgeport, Conn.	The Fannie A. Smith Froebel Kindergarten Training School.	Fannie A. Smith.
Wilmington, Del.	Miss Beaman's Training School for Kindergartners.	Elizabeth Beaman.
Washington, D. C.	Columbia Kindergarten Training School	Misses Lippincott and Baker.
Do.	Kindergarten Department, Howard University (colored).	Martha MacLear.
Do.	Kindergarten Department, Lucy Webb Hayes Training School.	Sue Northey.
Tallahassee, Fla.	Kindergarten Department, State College for Women.	Mabel Wheeler.
Atlanta, Ga.	Atlanta Kindergarten Normal and Elementary School.	Willette A. Allen.
Do.	Kindergarten Department, Atlanta University (colored).	Gertrude H. Ware.
Columbus, Ga.	Free Kindergarten Association Training School.	Edwina Wood.
La Grange, Ga.	Kindergarten Department, Training School at La Grange Settlement.	Charlotte A. Wing.
Savannah, Ga.	Kate Baldwin Free Kindergarten Association Training School.	Hortense M. Orcutt.
Honolulu, Hawaii.	Honolulu Free Kindergarten Training School.	Frances Lawrence.
Chicago, Ill.	Chicago Kindergarten Institute	Mrs. Mary B. Page.
Do.	Kindergarten Department, School of Education, Chicago University.	Alice Temple.
Do.	Kindergarten Collegiate Institute of Chicago	Eva B. Whitmore.
Do.	National Kindergarten College	Elizabeth Harrison.
Do.	Pestalozzi-Froebel Kindergarten Training School.	Mrs. B. H. Hegner.
Indianapolis, Ind.	The Teachers' College of Indianapolis	Mrs. Eliza A. Blaker.
South Bend, Ind.	The South Bend Training School	Mrs. Alma O. Ware.
Valparaiso, Ind.	Kindergarten Department, Valparaiso University.	Mrs. Mary A. Hemstock.
Cedar Falls, Iowa.	Kindergarten Department, Iowa State Teachers College.	Corinne Brown.
Des Moines, Iowa.	Kindergarten Department, Drake University	Bessie M. Park.
Holton, Kans.	Kindergarten Department, Campbell University.	
Baltimore, Md.	Affordby Kindergarten Normal School	Elizabeth Silkman.
Do.	Kindergarten Department, Goucher College	Stella A. McCarty.
Boston, Mass.	Froebel School of Kindergarten Normal Classes.	Annie C. Rust.
Do.	Miss Niel's Training School for Kindergartners	Harriet Niel.
Do.	The Perry Kindergarten Normal School	Mrs. Annie M. Perry.
Do.	Miss Wheelock's Kindergarten Training School.	Lucy Wheelock.
Do.	Susan E. Blow Training School for Kindergartners.	Laura Fisher.
Cambridge, Mass.	Lesley Normal School	Mrs. Edith L. Wolfard.
North Adams, Mass.	Kindergarten Department, Mark Hopkins School.	Mrs. E. Graeme Graves.
Springfield, Mass.	Springfield Kindergarten Training School	Hattie Twitchell.
Alma, Mich.	Kindergarten Department, Alma College	Caroleen Robinson.
Big Rapids, Mich.	Kindergarten Department, Ferris Institute	S. Mary Holdridge.
Grand Rapids, Mich.	Grand Rapids Kindergarten Training School	Clara Wheeler.
Muskegon, Mich.	Kindergarten Department, City Normal Training School	Marjorie Kinnan.
Minneapolis, Minn.	Minneapolis Kindergarten Association, Normal School.	Stella L. Wood.
Kansas City, Mo.	Froebel Kindergarten Training School	Elizabeth Moss.
St. Louis, Mo.	Kindergarten Training School, 5148 Westminster Place.	Mabel A. Wilson.
Fremont, Nebr.	Kindergarten Department, Fremont College	Eva Mixer.
Omaha, Nebr.	Kindergarten Department, Omaha Teachers Training School.	Mrs. Orietta S. Chittenden.
University Place, Nebr.	Kindergarten Department, Nebraska Wesleyan University.	Lilian Beach.
East Orange, N. J.	Miss Cora Webb Peet's Kindergarten Normal Training School.	Cora Webb Peet.
Trenton, N. J.	Kindergarten Department, Carroll Robbins Training School.	Bertha M. Barwis.
Buffalo, N. Y.	Training School of Buffalo Kindergarten Association.	Ella C. Elder.
Herkimer, N. Y.	Kindergarten Department, Folts Mission Institute.	Amy Quackenbush.
New York (Brooklyn).	Kindergarten Department, Adelphi Normal School for Kindergartners.	Anna E. Harvey.
Do.	School of Kindergarten Training, Pratt Institute.	Alice Fitts.
New York, N. Y.	Kindergarten Normal Department, Ethical Culture School.	Jessica E. Beers.
Do.	Training School of the Froebel League	Mrs. Marion B. B. Langzettel.
Do.	Jenny Hunter Kindergarten Training School	Jenny Hunter.
Do.	Harriette M. Mills Kindergarten Training School.	Harriette M. Mills.
Do.	New York Kindergarten Association Training School.	Laura Fisher.
Do.	Kindergarten Department, Hunter College of the City of New York.	Marie Bell Coles.

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XIII.—Principals of Normal and Kindergarten Training Schools—Continued.

3.—KINDERGARTEN TRAINING SCHOOLS—Continued.

Location.	Name of institution.	Principal.
New York, N. Y.	Kindergarten Department, Teachers College, Columbia University.	Patty Smith Hill.
Athens, Ohio	Kindergarten Department, Ohio University	Constance T. McLeod.
Cincinnati, Ohio	Cincinnati Kindergarten Association Training School.	Lillian H. Stone.
Do	Kindergarten Department, Cincinnati Missionary Training School.	Lottie M. Sinnett.
Cleveland, Ohio	Cleveland Kindergarten Training School	Netta Faris.
Columbus, Ohio	Kindergarten Normal Training School	Elizabeth N. Samuel.
Oberlin, Ohio	Oberlin Kindergarten Training School	Clara May.
Toledo, Ohio	Law Froebel Kindergarten Training School	Mary E. Law.
Portland, Oreg.	Elizabeth K. Matthews Normal Training School	Elizabeth K. Matthews.
Harrisburg, Pa.	Froebel Kindergarten Training School	Evelyn Barrington.
Philadelphia, Pa.	Froebellian School for Women	Emily D. Wright.
Do	Miss Hart's Training School	C. M. C. Hart.
Do	Kindergarten Department, Temple University	Lucinda P. MacKenzie.
Pittsburgh, Pa.	Kindergarten Department, Training School for Teachers, Colfax School No. 1.	Alice Parker.
Do	School of Childhood, University of Pittsburgh	Meredith Smith.
Greenville, S. C.	Kindergarten Department, Greenville Female College.	Kitty T. Perrin.
Dallas, Tex.	Dallas Free Kindergarten Training School and Industrial Association.	Mary K. Drew.
Fort Worth, Tex.	Fort Worth Kindergarten Training School	Ella J. Black.
San Antonio, Tex.	San Antonio Kindergarten Training School	
Provo, Utah	Kindergarten Department, Brigham Young University.	Ida S. Dusenberry.
Salt Lake City, Utah	Kindergarten Department, University of Utah	Rose Jones.
Norfolk, Va.	Kindergarten Association Training School	Lilian Wadsworth.
Richmond, Va.	Richmond Training School for Kindergartners	Lucy S. Coleman.

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XIV—Vocational Education.

1.—STATE OFFICIALS IN CHARGE OF VOCATIONAL EDUCATION.

States.	Division designation.	Staff.	Official position.	Appointed.
Massachusetts..	Department of vocational education, State board of education, Boston.	Robert O. Small	Deputy commissioner for vocational education	Aug. 1,1913
		Charles R. Allen	Agent, industrial training for men and boys	Mar. 1,1911
		Rufus W. Stimson	Agent, agricultural education	Aug. 1,1911
		Nellie M. Wilkins	Assistant, training for women and girls	Oct. 1,1913
New York.....	Division of agricultural and industrial education, State department of education, Albany.	Chester L. Pepper	Special agent	Aug. 1,1913
		Arthur D. Dean	Chief of division	Sept. 1,1908
		Royal B. Farnum	Specialist in drawing and handwork	Nov. 29,1900
		L. S. Hawkins	Specialist in agricultural education	July 1,1912
		L. A. Wilson	Specialist in industrial education	Oct. 1,1912
		Mrs. Anna Hedges Talbot	Specialist in vocational education for girls	Oct. 1,1914
		Arthur K. Getman	Assistant in agricultural education	June 24,1915
		George A. Works	State college of agriculture cooperative associate	Do.
Connecticut....	State board of education, Hartford	Frederick J. Trinder	State supervisor of trade education	Jan. 6,1914
Pennsylvania..	Vocational division, State department of public instruction, Harrisburg.	Millard B. King	Expert assistant for industrial education	Dec. 6,1911
		Lindley H. Dennis	Expert assistant for agricultural education	Do.
Wisconsin.....	Department of industrial education, State department of public instruction, Madison.	Warren E. Hicks	Assistant for industrial education	June 1,1912
	Do	Frank L. Glynn	Secretary, State board of industrial education	Sept. 1,1916
New Jersey....	Division of industrial education, State department of public instruction, Trenton.	Lewis H. Carris	Assistant commissioner of education	Jan. 1,1913
		Edward A. Reuther	Assistant in industrial education	Sept. 1,1914
		Mrs. I. P. O'Leary	Assistant in girls' vocational work	Oct. 1,1914
Indiana.....	Vocational division, State department of public instruction, Indianapolis.	William F. Book	Deputy State superintendent for vocational education.	June 1,1913
		Z. M. Smith	Special agent for agricultural education	Do.
		Miss A. S. Baylor	State supervisor of home economics	June 1,1916
		Charles H. Winslow	State director of vocational research	July 1,1916
California.....	Division of vocational education, State department of public instruction, Sacramento.	Edwin R. Snyder	Commissioner for vocational education	Jan. 1,1914
New Mexico....	Division of industrial education, State department of education, Santa Fe.	L. C. Mersfelder	State director of industrial education	Dec. 1,1915
Maine.....	Industrial division, State department of public instruction, Augusta.		State director of practical arts	
		Marion C. Ricker	State director of domestic arts	Sept. 1,1914

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XIV.—Vocational Education—Continued.

2.—DIRECTORS OF TEACHER TRAINING COURSES.[1]

Location.	Institution.	Director.
ALABAMA.		
Auburn	Alabama Polytechnic Institute	Zebulon Judd.
Centerville	Centerville Industrial Institute	H. D. Davidson.
Jacksonville	State Normal School	Ethel Randolph.
Normal	Agricultural and Mechanical College for Negroes	L. A. Van Hoose.
Troy	State Normal School	V. P. McKinley.
Tuskegee	Normal and Industrial Institute (colored)	R. R. Taylor.
ARIZONA.		
Flagstaff	State Normal School	E. E. Rosenberry.
Tempe	do	A. B. Clark.
Tucson	University of Arizona	W. S. Hendry.
ARKANSAS.		
Fayetteville	University of Arkansas	J. R. Grant.
CALIFORNIA.		
Arcata	Humboldt State Normal School	Bertha Henderson.
Fresno	State Normal School	W. B. Givens.
Los Angeles	do	C. W. Kent.
San Jose	do	W. S. Marten.
Santa Barbara	State Normal School of Manual Arts and Home Economics.	Frank H. Ball.
Do	do	Charles Robinson.
Stanford University	Leland Stanford, jr., University	E. P. Lesley.
COLORADO.		
Fort Collins	State Agricultural College	J. W. Lawrence.
Gunnison	State Normal School	W. C. P. Meddins
CONNECTICUT.		
Hartford	Hillyer Institute	H. F. Stuart.
DISTRICT OF COLUMBIA.		
Washington	Howard University (colored)	H. D. Hatfield.
GEORGIA.		
Atlanta	Atlanta University (colored)	Geo. K. Howe.
Mount Berry	The Berry School (for boys)	Martha Berry.
IDAHO.		
Albion	State Normal School	J. C. Werner.
ILLINOIS.		
Charleston	State Normal School	A. G. Pippitt.
Chicago	Lewis Institute (Madison and Robey Sts.)	Grace G. Hood.
Do	do	Anna McMillan
Do	University of Chicago	F. M. Leavitt.
Do	Chicago Normal College	O. L. McMurry.
Do	F. W. Parker School	L. W. Wahlstrom.
Do	Chicago Technical College	Charles W. Morey.
Decatur	James Millikin University	J. E. Rouse.
De Kalb	State Normal School	S. J. Vaughn.
Macomb	do	E. A. Franquemont.
Mooseheart	Vocational and Industrial Institute (L. O. M.)	M. P. Adams.
Normal	State Normal University	E. A. Turner.
Peoria	Bradley Polytechnic Institute	C. A. Bennett.
INDIANA.		
Bloomington	Indiana University	R. J. Leonard.
Danville	Central Normal College	J. W. Laird.
La Fayette	Purdue University	R. B. Trueblood.
Marion	Marion Normal Institute	J. L. Massena.
Princeton	Princeton Normal and Industrial University (colored).	H. F. Smith.

[1] This table contains the names of persons reported by the institutions designated as "in charge of courses for the preparation of special teachers (men) or directors or supervisors" of the manual arts or for vocational schools.

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XIV.—Vocational Education—Continued.

2.—DIRECTORS OF TEACHER TRAINING COURSES—Continued.

Location.	Institution.	Director.
INDIANA—continued.		
Earlham	Earlham College	Paul H. Brown.
Terre Haute	Indiana State Normal School	M. L. Laubach.
Valparaiso	Valparaiso University	H. F. Black.
IOWA.		
Cedar Falls	State Teachers College	C. H. Bailey.
Des Moines	Des Moines College	Thomas McMillan.
Iowa City	State University of Iowa (Department of Manual Arts).	R. C. Kelley.
Shenandoah	Western Normal College	F. G. Baker.
KANSAS.		
Emporia	State Normal College	H. H. Brancher.
Hays	Fort Hays Kansas Normal School	Clarence J. Smith.
Lawrence	University of Kansas	H. W. Nutt.
Pittsburg	State Manual Training Normal School	H. C. Givens.
KENTUCKY.		
Berea	Berea College	A. E. Gladding.
Do	....do	A. H. May.
Lincoln Ridge	Lincoln Institute of Kentucky	A. Eugene Thompson.
Richmond	State Normal College	B. H. Barnard.
LOUISIANA.		
Baton Rouge	Louisiana State University and Agricultural and Mechanical College.	D. T. Powers.
Natchitoches	State Normal School	A. M. Hopper.
New Orleans	Public School Department	David S. Hill.
MASSACHUSETTS.		
Boston	Massachusetts Normal Art School	J. F. Hopkins.
Do	Franklin Union	W. B. Russell.
Cambridge	Harvard University	H. W. Holmes.
Fitchburg	State Normal School	W. B. Anthony.
MICHIGAN.		
Kalamazoo	State Normal School	G. S. Waite.
Mount Pleasant	....do	O. W. Troutman.
MINNESOTA.		
Mankato	State Normal School	C. W. Coon.
Minneapolis	University of Minnesota	R. L. Southworth.
Moorhead	State Normal School	J. W. Eck.
St. Cloud	....do	L. A. Williams.
St. Paul	Macalester College	H. S. Alexander.
Do	University of Minnesota (College of Agriculture)	A. V. Storm.
St. Peter	Gustavus Adolphus College	Harry Hedberg.
Winona	State Normal School	J. H. Sandt.
MISSISSIPPI.		
Greenville	Greenville Home Industrial Institute (colored)	W. T. Burnside.
Shelby	Industrial Agricultural College for Negroes	H. B. Ellis.
MISSOURI.		
Cape Girardeau	State Normal School	Charles Lamb.
Columbia	University of Missouri	I. S. Griffith.
Jefferson City	Lincoln Institute (colored)	J. W. Kinney.
St. Louis	Christian Brothers College	Hubert Lewis.
Warrensburg	State Normal School	August Ahrens.
NEBRASKA.		
Kearney	State Normal School	C. H. Wellers
Peru	....do	F. C. Smith.
NEW HAMPSHIRE.		
Durham	New Hampshire College of Agriculture and Mechanic Arts.	R. H. Porter.
Keene	State Normal School	C. H. C. Dudley.
Plymouth	....do	C. A. King.
NEW JERSEY.		
Trenton	State Normal School	C. A. Burt.

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XIV.—Vocational Education—Continued.

2.—DIRECTORS OF TEACHER TRAINING COURSES—Continued.

Location.	Institution.	Director.
NEW MEXICO.		
East Las Vegas	State Normal University	Frank Carroon.
Silver City	State Normal School	W. G. Shumway.
NEW YORK.		
Albany	State Teachers College	H. B. Smith.
Alfred	Alfred University	F. S. Clarke.
Do	do	L. B. Crandall.
Brockport	State Normal School	H. G. Salisbury.
Buffalo	do	Daniel Upton.
Ithaca	Cornell University	G. A. Works.
New Paltz	State Normal School	L. S. Greene.
New York City	Teachers College (Columbia University)	F. G. Bonser.
Do	do	J. H. Constantine.
Do	New York University	C. J. Pickett.
Do	Hunter College of the City of New York	M. C. W. Reid.
Do	Ethical Culture Schools	A. W. Richards.
Do	do	James McKinney.
Oswego	State Normal School	J. C. Park.
Rochester	Mechanics Institute	J. F. Barker.
Syracuse	Syracuse University	J. R. Street.
NORTH CAROLINA.		
Raleigh	Shaw University (colored)	Anna E. Foster.
Do	St. Augustine's School	Martha Hyde.
West Raleigh	North Carolina College of Agriculture and Mechanic Arts.	H. E. Satterfield.
NORTH DAKOTA.		
Ellendale	State Normal and Industrial School	R. M. Black.
Agricultural College	North Dakota Agricultural College	A. D. Weeks.
Grand Forks	University of North Dakota	V. E. Sayre.
Valley City	State Normal School	F. H. Selden.
OHIO.		
Athens	Ohio University	G. E. McLaughlin.
Bowling Green	State Normal College	L. L. Winslow.
Cleveland	City Normal School	W. E. Roberts.
Columbus	Ohio State University	E. L. Usry.
Dayton	Mt. St. John Normal School	L. A. Yeske.
Kent	State Normal College	C. S. Van Deusen.
Oxford	Miami University	F. C. Whitcomb.
OKLAHOMA.		
Ada	State Normal School	E. E. Ericson.
Alva	do	W. H. Wood.
Edmond	do	V. O. Wilson.
Norman	University of Oklahoma	E. L. Davis.
Stillwater	Oklahoma Agricultural and Mechanical College	J. H. Bowers.
Do	do	D. C. Mooring.
Tahlequah	State Normal School	A. M. Baumann.
Weatherford	do	W. Z. Smith.
OREGON.		
Corvallis	Oregon Agricultural College	F. H. Shepherd.
PENNSYLVANIA.		
Bloomsburg	State Normal School	L. Anderson.
Edinboro	do	G. B. Frost.
Indiana	do	E. M. Jackson.
Lewisburg	Bucknell University	F. E. Burpee.
Mansfield	State Normal School	H. W. Fawcett.
Philadelphia	Philadelphia Trades School	W. C. Ash.
Do	Public School Department	J. C. Frazee.
Do	Temple University	C. E. Karlson.
Pittsburgh	University of Pittsburgh	H. R. Kniffin.
Do	Carnegie Institute of Technology	C. B. Connelley.
State College	Pennsylvania State College	Hugo Diemer.
Williamson School	Williamson Trade School	J. A. Pratt.
PHILIPPINE ISLANDS.		
Manila	Philippine Public Schools	C. H. Magee.
PORTO RICO.		
Rio Piedras	Normal College	F. S. Pugh.

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XIV.—Vocational Education—Continued.

2.—DIRECTORS OF TEACHER TRAINING COURSES—Continued.

Location.	Institution.	Director.
RHODE ISLAND.		
Providence	State Normal School	A. L. Cotton.
SOUTH CAROLINA.		
Charleston	State Normal School	Fiske Allen.
Columbia	University of South Carolina	T. A. M. Cook.
Orangeburg	Colored Normal, Industrial, Agricultural, and Mechanical College of South Carolina.	M. F. Whittaker.
Do	....do	R. S. Wilkinson.
Do	Claflin University (colored)	W. W. Wilkins.
SOUTH DAKOTA.		
Aberdeen	State Normal School	C. C. Steeh.
TENNESSEE.		
Johnson City	East Tennessee State Normal School	W. B. Coggin.
Knoxville	Knoxville College (colored)	G. W. Hurd.
Memphis	West Tennessee State Normal School	C. H. Wilson.
Murfreesboro	Middle Tennessee State Normal School	Clark Woodward.
Nashville	State Agricultural and Industrial Normal School for Negroes.	Mrs. M. L. Wilson.
Do	....do	F. B. Wilson.
Do	George Peabody College for Teachers	R. W. Selvidge.
TEXAS.		
Austin	University of Texas	E. C. Phillips.
Canyon City	State Normal College	R. A. Terrill.
Denton	College of Industrial Arts	F. M. Bralley.
Huntsville	Sam Houston Normal Institute	A. B. Mays.
Prairie View	State Normal College	T. H. Brittain.
Do	....do	W. P. Terrell.
San Marcos	State Normal School	J. R. Coxen.
UTAH.		
Logan	State Agricultural College	F. S. Harris.
Salt Lake City	University of Utah	J. H. Tipton.
VERMONT.		
Burlington	University of Vermont	J. F. Messenger.
VIRGINIA.		
Hampton	Hampton Institute	H. J. De Yarmett.
Do	....do	J. H. Jinks.
Williamsburg	College of William and Mary	H. E. Bennett.
WASHINGTON.		
Bellingham	State Normal School	C. R. Scudder.
Cheney	....do	F. E. Barr.
Ellensburg	....do	H. J. Whitney.
Pullman	State College of Washington	A. A. Cleveland.
Seattle	University of Washington	E. O. Eastwood.
Do	Public School Department	B. W. Johnson.
WEST VIRGINIA.		
Athens	State Normal School	F. E. Linnell.
Harpers Ferry	Storer College (colored)	J. T. Thornton.
Huntington	Marshall College	E. E. Meyers.
WISCONSIN.		
Eau Claire	County Training School for Teachers	F. E. Jaastad.
Madison	University of Wisconsin	V. A. C. Henmon.
Menomonie	Stout Institute	G. F. Buxton.
Milwaukee	University of Wisconsin (Extension Div.)	W. H. Henderson.
Do	State Normal School	E. R. Tompkins.
Oshkosh	....do	H. W. Schmidt.
Peru	....do	D. W. Hayes.
Platteville	....do	V. M. Russell.

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XIV.—Vocational Education—Continued.

3.—DIRECTORS OF SCHOOLS IN WHICH TRADES ARE TAUGHT.[1]

Location.	Institution.	Director.
ALABAMA.		
Tuskegee	Tuskegee Normal and Industrial Institute	Robert R. Moton.
CALIFORNIA.		
San Francisco	Lick School of Mechanical Arts	George A. Merrill.
Do	Lux School of Industrial Training	Theresa M. Otto.
Do	Wilmerding School of Industrial Arts	George A. Merrill.
COLORADO.		
Denver	Denver School of Trades	Wm. C. Borst.
CONNECTICUT.		
Bridgeport	State Trade Education Shop	James F. Johnson.
New Britain	State Trades School	
New Haven	Boardman Apprentice Shops	R. O. Beebe.
Putnam	State Trades School (boys)	Thomas H. Trevithick.
Do	State Trades School (girls)	Mary E. Robins.
GEORGIA.		
Columbus	Secondary Industrial School	R. B. Daniel.
ILLINOIS.		
Chicago	School for Apprentices (Lakeside Press)	E. E. Sheldon.
Peoria	School of Horology (Bradley Institute)	A. T. Westlake.
LOUISIANA.		
Lafayette	Lafayette Industrial Institute	H. C. Bond.
New Orleans	Nicholls Industrial School for Girls	Rita Johnson.
Ruston	Louisiana Industrial Institute	
MARYLAND.		
Frederick	Night School for Boys	Roger Harley.
Do	Night School for Girls	Edith Thomas.
Hagerstown	Trades School for Boys	H. M. Lippy.
Do	Industrial School for Boys (colored)	Benjamin Smith.
Do	Industrial School for Girls (colored)	Hattie Newman.
MASSACHUSETTS.[2]		
Boston	Boys' Trades School	W. C. Crawford.
Do	Trade school for girls	Florence E. Leadbetter.
Do	Franklin Union	Walter B. Russell.
Do	Wentworth Institute	Arthur L. Williston.
Cambridge	Girls' Trades School	Maude A. Deehan.
Northampton	Smith's Agricultural School and Northampton School of Industry.	Herbert N. Loomis.
Springfield	Evening Trades School	Chas. F. Warner.
Do	Vocational School for Boys	E. E. MacNary.
Westfield	Westfield Trades School	Burton A. Prince.
Worcester	Trades School for Boys	Albert J. Jameson.
Do	Girls' Trade Schools	Helen R. Hildreth.
MICHIGAN.		
Saginaw	Hill Trades School (boys)	C. A. Hach.
Do	Hill Trades School (girls)	Caroline M. Ulrich.
MINNESOTA.		
Minneapolis	Dunwoody Industrial Institute	Chas. A. Prosser.
Do	Girls' Vocational High School	Elizabeth M. Fish.
MISSOURI.		
St. Louis	Ranken School of Mechanical Trades	Lewis Gustafson.

[1] In the above list are included schools offering one or more courses which prepare students for the mechanical trades and industries, by teaching the technic of the occupation, in whole or in part, with the expectation that the training given in such course shall serve to shorten the usual period of learning or apprenticeship in the occupation.

[2] See Bulletin 1914, No. 5, Massachusetts State Board of Education, for classified list of schools.

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XIV.—Vocational Education—Continued.

3.—DIRECTORS OF SCHOOLS IN WHICH TRADES ARE TAUGHT—Continued.

Location.	Institution.	Director.
NEW JERSEY.		
Atlantic City	State Aided Departments	Clara H. Krauter.
Bayonne	Boys' Vocational School	M. W. Haynes.
Bordentown	Industrial School (colored)	W. R. Valentine.
Hoboken	Hoboken Industrial School	R. A. Beyer.
Jersey City	Industrial Department, Dickinson High School	F. E. Mathewson.
Do	Vocational Department, Public School 32	Ernest B. Kent.
New Brunswick	Middlesex County Vocational Schools	C. E. Parsil.
Newark	Newark Technical School	Chas. A. Colton.
Do	Essex County Vocational Schools	Wesley A. O'Leary.
Do	Boys' Industrial School	James E. Dougan.
Do	Girls' Industrial School	Griselda Ellis.
Do	Fawcett School of Industrial Arts	Cephas I. Shirley.
Orange	Central Grammar School (Boys' Vocational Department).	Frank Coulter.
Do	Central Grammar School (Girls' Vocational Department).	Florine Welch.
Trenton	State School of Industrial Arts	F. F. Frederick.
NEW YORK.		
Albany	Albany Vocational School	Oakley Furney.
Do	Vocational School No. 6	Do.
Brooklyn	Pratt Institute	S. S. Edmands.
Do	Brooklyn Vocational School	Geo. J. Loewy.
Buffalo	Black Rock Vocational School	Samuel King.
Do	Elm Vocational School	Wm. B. Kamprath.
Do	Peckham Vocational School	Wm. W. Miller.
Do	Seneca Vocational School	Elmer S. Pierce.
New York City	Murray Hill Vocational School	Geo. J. Loewy.
Do	Baron de Hirsch Trade School	J. E. G. Yalden.
Do	Boys' Vocational School	C. J. Pickett.
Do	Cooper Union	C. R. Richards.
Do	Hebrew Technical Institute (boys)	Edgar S. Barney.
Do	Hebrew Technical Institute (girls)	Fred E. Emmons.
Do	Manhattan Trade School for Girls	Florence M. Marshall.
Do	Mechanics Institute	Louis Rouillion.
Do	New York Trades School	Harry V. Brill.
Rochester	Madison Park Vocational School	Mary E. Buckley.
Do	Rochester Shop School	V. A. Bird.
Yonkers	Saunders Trades School	J. J. Eaton.
OHIO.		
Columbus	Columbus Trades School	J. H. Gill.
OREGON.		
Portland	Benson Polytechnic School	Chas. E. Cleveland.
Do	Trades School for Girls	
PENNSYLVANIA.		
Philadelphia	Philadelphia Trades School	Wm. C. Ash.
Do	Franklin Institute School of Mechanic Arts	S. van T. Jester.
Do	Philadelphia College of Horology	F. W. Schuler.
Pittsburgh	Margaret Morrison Carnegie School	Mary B. Breed.
Do	School of Applied Industries, Carnegie Institute of Technology.	C. B. Connelley.
East Pittsburgh	Casino Technical Night School	C. R. Dooley.
Williamson	Williamson Free School of Mechanical Trades	H. S. Bitting.
VIRGINIA.		
Hampton	Hampton Institute, Trades School (colored)	H. J. DeYarmett.
WISCONSIN.		
Milwaukee	Trades School for Boys	James A. Cox.
Do	Trades School for Girls	Ora Blanchard.

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XV.—Superintendents of Schools for the Blind.

Location.	Name of institution.	Superintendent or principal.
Talladega, Ala.	Alabama School for the Blind	Joseph S. Ganey.
Do.	Alabama School for the Negro Deaf and Blind	Do.
Little Rock, Ark.	Arkansas School for the Blind	John H. Hinemon.
Do.	Arkansas School for the Blind (colored)	Mrs. L. N. Jackson.
Berkeley, Cal.	California School for Deaf and Blind	L. E. Milligan.
San Francisco (1526 California St.), Cal.	San Francisco Association for the Blind	Ruth Quinan Marks.
Colorado Springs, Colo.	Colorado School for the Deaf and the Blind	W. K. Argo.
Hartford, Conn.	Connecticut Institute for the Blind	Geo. H. Marshall.
Do.	Connecticut Institute for the Blind (dept. of trades).	R. E. Colby.
St. Augustine, Fla.	Florida School for the Deaf and the Blind	A. H. Walker.
Do.	Florida School for the Deaf and the Blind (colored).	Do.
Macon, Ga.	Georgia Academy for the Blind	G. F. Oliphant.
Do.	Georgia Academy for the Blind (colored)	Do.
Gooding, Idaho	Idaho State School for the Deaf and the Blind	W. E. Taylor, M. A.
Chicago, Ill.	Chicago Public Schools for the Blind	John B. Curtis.
Jacksonville, Ill.	Illinois School for the Blind	H. C. Montgomery.
Indianapolis, Ind.	Indiana School for the Blind	George S. Wilson.
Vinton, Iowa	Iowa College for the Blind	George D. Eaton.
Kansas City, Kans.	Kansas State School for the Blind	Isa Green.
Louisville, Ky.	Kentucky School for the Blind	Susan B. Merwin.
Do.	Kentucky School for the Blind (colored)	Do.
Baton Rouge, La.	Louisiana State School for the Blind	G. C. Huckaby.
Portland, Me.	Maine Institution for the Blind	Millard W. Baldwin.
Overlea, Md.	Maryland School for the Blind	John F. Bledsoe.
Do.	Maryland School for the Colored Blind and Deaf	Do.
Watertown, Mass.	Perkins Institution and Massachusetts School for the Blind.	Edward E. Allen.
Detroit, Mich.	Detroit Public School for Blind	Fanny S. Fletcher.
Lansing, Mich.	Michigan School for the Blind	C. E. Holmes.
Saginaw, Mich.	Michigan Employment Institution for the Blind	Frank G. Putnam.
Faribault, Minn.	Minnesota School for the Blind	James J. Dow.
Jackson, Miss.	Mississippi Institute for the Blind	R. S. Curry.
St. Louis, Mo.	Missouri School for the Blind	S. M. Green.
Boulder, Mont.	Montana School for the Deaf and the Blind	H. J. Menzemer, M. A.
Nebraska City, Nebr.	Nebraska School for the Blind	N. C. Abbott.
Jersey City, N. J.	Public School Classes for Blind	Henry Snyder.
Newark, N. J.	do	Janet G. Paterson.
Summit, N. J.	International Sunshine Society, Department for the Blind (Arthur Home).	Mary C. Seward.
Alamogordo, N. Mex.	New Mexico Institute for the Blind	R. R. Pratt.
Batavia, N. Y.	New York State School for the Blind	C. A. Hamilton, M. A.
Brooklyn (84th St. and 13th Ave.), N. Y.	International Sunshine Society, Department for the Blind.	Grace McMillen.
New York (University Ave.), N. Y.	Catholic Institute for the Blind	Sister M. Bertrand.
New York, N. Y.	New York Institute for the Education of the Blind	Edward M. Van Cleve.
Do.	Public School Classes for Blind Children	Frances E. Moscrip.
Prince Bay, N. Y.	St. Joseph's Blind Asylum	Rev. M. J. Fitzpatrick.
Raleigh, N. C.	State School for the Blind and the Deaf	John E. Ray, M. A.
Do.	State School for the Blind and the Deaf (colored)	Do.
Bathgate, N. Dak.	North Dakota School for the Blind	B. P. Chapple.
Cincinnati, Ohio	Cincinnati School for the Blind	Estella Lawes.
Cleveland, Ohio.	Cleveland Public School for the Blind	R. B. Irwin.
Columbus, Ohio.	Ohio State School for the Blind	Charles F. F. Campbell.
Toledo, Ohio.	Toledo School for the Blind	R. B. Irwin.
Muskogee, Okla.	Oklahoma School for the Blind	O. W. Stewart.
Taft, Okla.	Institute for Deaf, Blind, and Orphans (colored)	J. R. Johnson.
Salem, Oreg.	Oregon State School for the Blind	E. T. Moores.
Overbrook, Pa.	Pennsylvania Institution for the Instruction of the Blind.	Olin H. Burritt, M. A.
Pittsburgh, Pa.	Western Pennsylvania Institution for the Blind	Thos. S. McAloney.
Cedar Spring, S. C.	South Carolina School for the Deaf and the Blind	N. F. Walker, LL. D.
Do.	South Carolina School for the Deaf and the Blind (colored).	Do.
Gary, S. Dak.	South Dakota School for the Blind	Lelia M. Curl.
Nashville, Tenn.	Tennessee School for the Blind	John V. Armstrong.
Do.	Tennessee School for the Blind (colored)	Do.
Austin, Tex.	Deaf, Dumb, and Blind Institute for Colored Youths.	R. E. L. Holland.
Do.	Texas School for the Blind	E. E. Bramlette.
Ogden, Utah.	Utah School for the Blind	Frank M. Driggs, M. A.
Brattleboro, Vt.	Austine Institution for the Deaf and Blind	Helen G. Throckmorton.
Newport News, Va.	Virginia State School for Colored Deaf and Blind Children.	William C. Ritter.
Staunton, Va.	Virginia School for the Deaf and the Blind	W. A. Bowles.
Vancouver, Wash.	Washington State School for the Blind	Sadie E. Hall.
Romney, W. Va.	West Virginia Schools for the Deaf and the Blind	Parley De Berry.
Janesville, Wis.	Wisconsin School for the Blind	J. T. Hooper.
Milwaukee, Wis.	Day School for the Blind	Carrie B. Levy.
Racine, Wis.	do	Lydia E. Dunkelow.

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XVI.—Superintendents of Schools for the Deaf.

1.—STATE SCHOOLS.

Location.	Name of institution.	Superintendent or principal.
Talladega, Ala.	Alabama School for the Deaf	F. H. Manning.
Do.	Alabama School for the Negro Deaf and Blind	J. S. Graves.
Tucson, Ariz.	Arizona State School for the Deaf	Howard Griffin.
Little Rock, Ark.	Arkansas Deaf-Mute Institute	Isaac B. Gardner.
Do.	Arkansas Deaf-Mute Institute (colored)	Do.
Berkeley, Cal.	California School for Deaf and Blind	L. E. Milligan.
Colorado Springs, Colo.	Colorado School for the Deaf and the Blind	W. K. Argo.
Hartford, Conn.	American School, at Hartford, for the Deaf	Frank R. Wheeler, M. A.
Mystic, Conn.	Mystic Oral School for the Deaf	Tobias Brill.
Washington, D. C.	Columbia Institution for the Deaf	Percival Hall, M. A.
Do.	Gallaudet College for the Deaf[1]	Do.
Do.	Kendall School for the Deaf[1]	Lyman Steed, M. A.
St. Augustine, Fla.	Florida School for the Deaf and the Blind	A. H. Walker.
Do.	Florida School for the Deaf and the Blind (colored)	Do.
Cave Spring, Ga.	Georgia School for the Deaf	J. C. Harris.
Do.	Georgia School for the Deaf (colored)	Do.
Gooding, Idaho.	Idaho State School for the Deaf and the Blind	W. E. Taylor, M. A.
Jacksonville, Ill.	Illinois School for the Deaf	Charles P. Gillett.
Indianapolis, Ind.	Indiana State School for the Deaf	Richard O. Johnson.
Council Bluffs, Iowa.	Iowa School for the Deaf	Henry W. Rothert.
Olathe, Kans.	Kansas School for the Deaf	Kate S. Herman.
Danville, Ky.	Kentucky School for the Deaf	Augustus Rogers.
Do.	Kentucky School for the Deaf (colored)	Do.
Baton Rouge, La.	Louisiana State School for the Deaf	W. S. Holmes.
Portland, Me.	Maine School for the Deaf	Elizabeth R. Taylor.
Frederick, Md.	Maryland State School for the Deaf	T. C. Forrester.
Overlea, Md.	Maryland School for the Colored Blind and Deaf	John F. Bledso.
Beverly, Mass.	New England Industrial School for Deaf Mutes	Louise Upham.
Northampton, Mass.	Clarke School for the Deaf[2]	Caroline A. Yale, L. H. D.
Randolph, Mass.	Boston School for the Deaf	M. J. Splaine.
Flint, Mich.	Michigan School for the Deaf	Luther L. Wright.
Faribault, Minn.	Minnesota School for the Deaf	James N. Tate, LL. D.
Jackson, Miss.	Institution for the Deaf and Dumb	Richmond S. Dobyns.
Do.	Institution for the Deaf and Dumb (colored)	Do.
Fulton, Mo.	Missouri School for the Deaf	J. Stuart Morrison.
Do.	Missouri School for the Deaf (colored)	Do.
Boulder, Mont.	Montana School for the Deaf and the Blind	H. J. Menzemer, M. A.
Omaha, Nebr.	Nebraska School for the Deaf	Frank W. Booth.
Trenton, N. J.	New Jersey School for the Deaf	John P. Walker.
Santa Fe, N. Mex.	New Mexico Asylum for the Deaf and Dumb	W. O. Connor, jr., M. A.
Albany, N. Y.	Albany Home School for the Oral Instruction of the Deaf.	Quincy McGuire.
Buffalo, N. Y.	Le Couteulx St. Mary's Institution for the Improved Instruction of the Deaf.[2]	Sister Mary Anne Burke.
Malone, N. Y.	Northern New York Institution for Deaf Mutes	Edward C. Rider.
New York (904 Lexington Ave.), N. Y.	Association for the Improved Instruction of Deaf Mutes.[2]	Harris Taylor.
New York (Fort Washington Ave. and W. 163d St.), N. Y.	New York Institution for the Instruction of the Deaf and Dumb.	Enoch Henry Currier, M. A.
Rochester, N. Y.	Western New York Institution for Deaf Mutes	Z. F. Westervelt, LL. D.
Rome, N. Y.	Central New York Institution for Deaf Mutes	E. A. Gruver, M. A.
Westchester, N. Y.	St. Joseph's Institute for the Improved Instruction of Deaf Mutes.[2]	Rose A. Fagan.
Morganton, N. C.	North Carolina School for the Deaf	E. McKay Goodwin.
Raleigh, N. C.	State School for the Blind and the Deaf (colored)	John E. Ray, M. A.
Devils Lake, N. Dak.	North Dakota School for the Deaf	Frank Read, jr., M. A.
Columbus, Ohio.	Ohio State School for the Deaf	J. W. Jones, M. A.
Sulphur, Okla.	Oklahoma School for the Deaf	J. W. Blattner, M. A.
Taft, Okla.	Institute for Deaf, Blind, and Orphans (colored)	J. R. Johnson.
Salem, Oreg.	Oregon School for Deaf	E. S. Tillinghast.
Philadelphia (Belmont and Monument Aves.), Pa.	Home for the Training in Speech of Deaf Children Before They Are of School Age.	Mary S. Garrett.
Philadelphia (Mount Airy), Pa.	Pennsylvania Institution for the Deaf and Dumb	A. L. E. Crouter.
Pittsburgh (Brookline), Pa.	De Paul Institute for Deaf Mutes[2]	Sister Mary James.
Scranton, Pa.	Pennsylvania Oral School for the Deaf	Kate H. Fish.
Swissvale (Edgewood Park), Pa.	Western Pennsylvania Institution for the Instruction of the Deaf and Dumb.	Wm. N. Burt, Ph. D.
Providence, R. I.	Rhode Island Institute for the Deaf	Edwin G. Hurd, M. A.
Cedar Spring, S. C.	South Carolina School for the Deaf and the Blind	N. F. Walker, LL. D.
Do.	South Carolina School for the Deaf and the Blind (colored).	Do.
Sioux Falls, S. Dak.	South Dakota School for the Deaf	Howard W. Simpson.

[1] Department of Columbia Institution for the Deaf.
[2] School is under private management, but receives State pupils.

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XVI.—Superintendents of Schools for the Deaf—Continued.

1.—STATE SCHOOLS—Continued.

Location.	Name of institution.	Superintendent or principal.
Knoxville, Tenn	Tennessee Deaf and Dumb School	Thomas L. Moses.
Do	Tennessee Deaf and Dumb School (colored)	Do.
Austin, Tex	Deaf, Dumb, and Blind Institute for Colored Youths.	R. E. L. Holland.
Do	Texas School for the Deaf	G. F. Urbantke.
Ogden, Utah	Utah School for the Deaf	Frank M. Driggs, M. A.
Brattleboro, Vt	Austine Institution for the Deaf and Blind	Helen G. Throckmorton.
Newport News, Va	Virginia State School for Colored Deaf and Blind Children.	Wm. C. Ritter.
Staunton, Va	Virginia School for the Deaf and the Blind	W. A. Bowles.
Vancouver, Wash	State School for the Deaf	Thomas P. Clarke.
Romney, W. Va	West Virginia Schools for the Deaf and the Blind	Parley De Berry.
Delavan, Wis	Wisconsin State School for the Deaf	E. W. Walker.

2.—PRIVATE SCHOOLS.

Los Angeles, Cal	Holden Home Oral School for Deaf	Mrs. J. B. Holden.
Oakland, Cal	St. Joseph's Home for Deaf Mutes	Sister M. Louis.
Macon, Ga	Miss Arbaugh's School for Deaf Children	Laura L. Arbaugh.
Chicago (40th St. and Belmont Ave.), Ill.	Ephpheta School for the Deaf	Annie M. Larkin.
Chinchuba, La	Chinchuba Deaf-Mute Institute	Rev. James H. Blenk.
Baltimore (851 Hollins St.), Md.	F. Knapp's English and German Institute	Wm. A. Knapp.
Baltimore (Irvington), Md.	St. Francis Xavier's School for the Deaf	Sister M. Michael.
Kensington, Md	Home School for Little Deaf Children	Anna C. Reinhardt.
West Medford, Mass	Sarah Fuller Home for Little Deaf Children	Henrietta Morrison.
North Detroit, Mich	Evangelical Lutheran Deaf-Mute Institute	Rev. Wm. Gielow.
Joplin, Mo	Arnold School for Deaf	Mercer Arnold.
St. Louis (Vandeventer Ave. and Westminster Place), Mo.	Central Institute for the Deaf	Ethel M. Hilliard.
St. Louis (901 N. Garrison Ave.), Mo	St. Joseph Institute for the Deaf	Sisters of St. Joseph.
Tamworth, N. H	Davidson School of Individual Instruction	S. G. Davidson, M. A.
New York (534 W. 187th St.), N. Y.	Reno Margulies School for the Deaf	Mrs. A. Reno Margulies.
New York (1 Mount Morris Park W.), N. Y.	Wright Oral School	John Dutton Wright, M. A.
Cincinnati (224 McCormick Place), Ohio.	Miss Breckinridge's School	Mary S. Breckinridge.
Lockland, Ohio	St. Rita School for the Deaf	Rev. H. J. Waldhaus.
Lansdowne, Pa	Sanatorium School for Nervous, Lame, or Deaf	Claudia M. Redd.
Philadelphia (1803 Vine St.), Pa.	Archbishop Ryan Memorial Institute for the Deaf	Sister M. Carmelia.
Lead, S. Dak	Black Hills School for the Deaf	Miss F. L. Willhoyte.
St. Francis, Wis	St. John's Institute for Deaf-Mutes	Rev. M. M. Gerend.

XVII.—Superintendents of Schools for the Feeble-Minded.

1.—STATE SCHOOLS.

Location.	Name of institution.	Superintendent or principal.
Eldridge, Cal	Sonoma State Home	Wm. J. G. Dawson, M.D.
Ridge, Colo	State Home and Training School for Mental Defectives.	A. P. Busey, M. D.
Lakeville, Conn	Connecticut Training School for Feeble-Minded	Chas. T. La Monre, M. D.
Lincoln, Ill	Lincoln State School and Colony	Thos. H. Leonard, M. D.
Fort Wayne, Ind	Indiana School for Feeble-Minded Youth	George S. Bliss, M. D.
Glenwood, Iowa	Iowa Institution for Feeble-Minded Children	Geo. Mogridge, M. D.
Winfield, Kans	State Home for Feeble-Minded	F. C. Cave, M. D.
Frankfort, Ky	Kentucky Institution for Feeble-Minded Children	H. C. Kehoe, M. D.
West Pownal, Me	Maine School for Feeble-Minded	Carl J. Hedin, M. D.
Owings Mills, Md	Rosewood State Training School for Feeble-Minded	Frank W. Keating, M.D.
Baldwinsville, Mass	Hospital Cottages for Children[1]	H. W. Page, M. D.
Waverley, Mass	Massachusetts School for the Feeble-Minded	Walter E. Fernald, M.D.
Wrentham, Mass	Wrentham State School	Geo. L. Wallace, M. D.

[1] Receives epileptic children as well as other classes needing hospital treatment and care.

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XVII.—Superintendents of Schools for the Feeble-Minded—Continued.

1.—STATE SCHOOLS—Continued.

Location.	Name of institution.	Superintendent or principal.
Lapeer, Mich.	Michigan Home and Training School	H. A. Haynes, M. D.
Faribault, Minn.	Minnesota School for Feeble-Minded and Colony for Epileptics.	A. C. Rogers, M. D.
Marshall, Mo.	Missouri Colony for Feeble-Minded and Epileptic	R. P. C. Wilson, M. D.
Boulder, Mont.	Montana Training School for Backward Children	H. J. Menzemer, M. A.
Beatrice, Nebr.	Nebraska Institution for Feeble-Minded Youth	D. G. Griffiths, M. D.
Laconia, N. H.	New Hampshire School for Feeble-Minded	Benjamin W. Baker, M. D.
Skillman, N. J.	New Jersey State Village for Epileptics	David F. Weeks, M. D.
Vineland, N. J.	New Jersey State Institution for Feeble-Minded	Madeleine A. Hallowell.
Do.	Training School at Vineland, New Jersey	E. R. Johnstone.
Newark, N. Y.	New York State Custodial Asylum	Ethan A. Nevin.
New York (Randalls Island), N. Y.	New York City Children's Hospitals and Schools	Wm. Burgess Cornell, M. D.
Rome, N. Y.	Rome State Custodial Asylum	Charles Bernstein, M. D.
Sonyea, N. Y.	Craig Colony for Epileptics	W. T. Shanahan.
Syracuse, N. Y.	Syracuse State Institution for Feeble-Minded Children.	O. H. Cobb, M. D.
Thiells, N. Y.	Letchworth Village	Charles S. Little, M. D.
Kinston, N. C.	Caswell Training School	C. Banks McNairy, M. D.
Grafton, N. Dak.	Institution for Feeble-Minded	A. R. T. Wylie, M. D.
Columbus, Ohio	do	E. J. Emerick, M. D.
Enid, Okla.	do	Wm. L. Kendall, M. D.
Elwyn, Pa.	Pennsylvania Training School for Feeble-Minded Children.	Martin W. Barr, M. D.
Pennhurst, Pa.	Eastern Pennsylvania State Institution for Feeble-Minded and Epileptic.	Oscar E. Thompson.
Polk, Pa.	State Institution for Feeble-Minded of Western Pennsylvania.	J. M. Murdoch, M. D.
Slocum, R. I.	Exeter School	Joseph H. Ladd, M. D.
Redfield, S. Dak.	State School and Home for Feeble-Minded	J. K. Kutnewsky.
Provo, Utah	State Mental Hospital: Department for Feeble-Minded.	G. E. Hyde, M. D.
Medical Lake, Wash.	State Institution for Feeble-Minded	S. C. Woodruff.
Chippewa Falls, Wis.	Wisconsin Home for Feeble-Minded	Alfred W. Wilmarth, M. D.
Lander, Wyo.	Wyoming School for Defectives	Charles E. Lane, M. D.

2.—PRIVATE SCHOOLS.

Godfrey, Ill.	"Beverly Farm" Home and School for Nervous and Backward Children.	Wm. H. C. Smith, M. D.
Wheaton, Ill.	Highland Heath	Mary E. Pogue, M. D.
Red Oak, Iowa.	Powell School for Backward and Mentally Deficient Children.	Velura E. Powell, M. D.
Farmdale, Ky.	Stewart Home and School	John P. Stewart, M. D.
Catonsville, Md.	Mount Herbert Private School for Feeble-Minded	Samuel J. Fort, M. D.
Amherst, Mass.	Home School for Backward Children and Youth	Frances J. Herrick.
Barre, Mass.	"Elm Hill" Private Home and School for Feeble-Minded.	George P. Brown, M. D.
Boston (80 Hammond St.), Mass.	Residence School for Special Children	Elizabeth L. Moulton.
Halifax, Mass.	Standish Manor School	Ellen C. Dresser.
Detroit, Mich.	Reed School for Nervous and Backward Children	Mrs. Frank A. Reed.
Kalamazoo (Comstock P. O.), Mich.	St. Anthony's School for Feeble-Minded and Backward Children.	Sister M. Vincent.
Northfield, Minn.	Baker School	Laura B. Baker.
St. Charles, Mo.	Emmaus Asylum for Epileptics and Feeble-Minded	Rev. J. W. Frankenfeld.
St. Louis (3809 Flad Ave.), Mo.	Miss Compton's School for Children of Retarded Mentality.	Fanny A. Compton.
Cranbury, N. J.	"The Larches" Educational Sanitarium for Mental Defectives.	Elise Gordon.
Haddonfield, N. J.	Bancroft Training School	E. A. Farrington, M. D.
Orange, N. J.	Seguin School for Children Who Deviate from the Normal.	Eisie M. Seguin.
South Orange, N. J.	School for Individual Teaching	Charlotte H. Miner.
Binghamton, N. Y.	Binghamton Training School	A. A. Boldt.
Camillus, N. Y.	Hill Crest School	A. Cora Harmon.
Newburgh, N. Y.	Sycamore Farm Home School	N. R. Brewster.
New York (238th St. and Riverdale Ave.), N. Y.	Florence Nightingale School for Nervous and Backward Children.	Sara Weinberger.
Saratoga Springs, N. Y.	Miss Copeland's School for Mentally Deficient Children.	Susan E. Copeland.
Walden, N. Y.	Goodale Manor School	Mary A. Williams.
Marietta, Ohio	Riverview School	Mary Merydith.
Berwyn (The Maples), Pa.	Latshaw School	Allen Latshaw.

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XVII.—Superintendents of Schools for the Feeble-Minded—Continued.

2.—PRIVATE SCHOOLS—Continued.

Location.	Name of institution.	Superintendent or principal.
Lansdowne, Pa.	Brookwood School for Nervous and Backward Children.	Rachel W. Brewster.
Philadelphia (Holmesburg), Pa.	Biddle School for Nervous and Backward Children.	Grace Biddle de Quelin.
Philadelphia (3412 Sansom St.), Pa.	Latshaw School	Allen Latshaw.
Roslyn, Pa.	Miss Wood's School for Exceptional Children	Mollie A. Woods.
Sharon Hill, Pa.	Miss McGrew's School for Boys of Defective Mentality.	Anna L. McGrew.
Murfreesboro, Tenn.	Bristol-Nelson Physiological School for Nervous and Backward Children.	Cora Bristol-Nelson.
Austin, Tex.	Texas Training School for Defectives and Sanitarium for Mental and Nervous Diseases.	T. O. Maxwell, M. D.
Falls Church, Va.	Gundry Home and Training School for Feeble-Minded and Epileptics.	Mattie Gundry.
Richmond, Va.	Home Place School	Alice C. Hinckley, M. A.
Jefferson, Wis.	St. Coletta Institute	Sisters of St. Francis Assisi.
Watertown, Wis.	Evangelical Luthern Home for Feeble-Minded and Epileptics.	Louis Pingel.

XVIII.—Summer School Directors.

Location.	Summer school.	Director or principal in 1916.	Probable date of session of 1917.	
			Opening.	Close.
ALABAMA.				
Auburn	Alabama Polytechnic Institute	Zebulon Judd	June 8	July 19
Birmingham	Birmingham Summer School	C. B. Glenn	June 4	July 13
Do	Birmingham Summer School (negro).	W. R. Wood, M. S.	...do...	Do.
Daphne	State Normal School	Harvey M. Morrow	June 5	July 28
Florence	...do...	H. J. Willingham	...do...	Aug. 19
Huntsville	Oakwood Manual Training School (negro).	C. J. Boyd	(1)	
Livingston	State Normal School	G. W. Brock	June 5	Aug. 20
Mobile	Summer Training School for Teachers.	S. S. Murphy	June 4	July 15
Montgomery	State Normal School for Negroes	J. W. Beverly	June 1	Do.
Normal	Agricultural and Mechanical College for Negroes.	(2)	June 13	July 23
Troy	State Normal School	E. M. Shackelford, M. A., LL. D.	May 15	July 15
Tuskegee	Tuskegee Normal and Industrial Institute (negro).	E. C. Roberts	June 18	July 26
University	University of Alabama	James J. Doster, M. A.	June 5	July 16
ARIZONA.				
Flagstaff	Northern Arizona Normal School	R. H. H. Blome, Ph.D.	June 18	Aug. 10
Phoenix	Private Summer School	Daniel F. Jantzen	May 23	July 29
ARKANSAS.				
Arkadelphia	Ouachita College	Estelle McMillian		
Conway	Arkansas State Normal School	J. J. Doyne	June 4	July 27
Fayetteville	University of Arkansas	B. W. Torreyson	June 13	July 23
CALIFORNIA.				
Alma	Cathedral Oaks School of Art	Charles F. Ingerson	June 1	Aug. 1
Arcata	Humboldt State Normal School	N. B. Van Matre	June 25	Aug. 3
Asilomar	Missionary Education Movement	Rev. E. F. Hall	July 20	July 30
Berkeley	California School of Arts and Crafts.	Frederick H. Meyer	June 25	Aug. 4
Do	University of California	Walter M. Hart	...do...	Do.
Carmel	Carmel Summer School of Art	C. P. Townsley	Aug. 3	Sept. 17
Claremont	Pomona College	A. D. Bissell, M. A.	July 2	Aug. 10
Fresno	Sierra Summer School (Fresno State Normal School).	W. B. Givens	June 25	Aug. 5

[1] No session in 1917.

[2] No session in 1916.

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XVIII.—Summer School Directors—Continued.

Location.	Summer school.	Director or principal in 1916.	Probable date of session of 1917.	
			Opening.	Close.
CALIFORNIA—continued.				
Laguna Beach	Pomona College Marine Laboratory.	W. A. Hilton, Ph. D.	July 2	Aug. 10
Los Angeles (Manual Arts High School).	Donaldson Summer School of Applied Art.	Douglas Donaldson[1]	July 1	Aug. 5
Los Angeles (Hollywood).	Krotona Institute of Theosophy (2 terms).	A. F. Knudsen	June 16	Aug. 16
Los Angeles (Sixth and Alvarado Streets).	Los Angeles School of Art and Design.	S. E. G. Macleod	June 20	Sept. 11
Los Angeles (251 South Hill Street).	Summer School of Physical Education (Y. W. C. A.).	Ella Stevers		
Los Angeles	University of Southern California.	T. B. Stowell, Ph. D.	June 25	Aug. 7
Do	Y. M. C. A. Summer School	J. A. Gillaspie	July 1	Aug. 31
Pacific Grove	Marine Biological Laboratory (Leland Stanford Junior University).	J. O. Snyder		
Piedmont	Class in Outdoor Sketching and Painting (California School of Arts and Crafts, Berkeley).	Frederick H. Meyer	June 25	Aug. 4
San Diego	State Normal School (2 terms)	E. L. Hardy	July 5	Aug. 16
San Francisco	California School of Fine Arts	Pedro J. Lemos		
Santa Barbara	State Normal School of Manual Arts and Home Economics.	Frank H. Ball	June 18	Aug. 24
Swanton	Camp California Summer School of Surveying (2 terms).	Francis S. Foote, jr.	May 18	July 13
COLORADO.				
Boulder	Colorado Chautauqua	F. A. Boggess	July 4	Aug. 14
Do	University of Colorado	Milo G. Derham	June 25	Aug. 4
Denver	Denver Normal and Preparatory School.	Frank C. Spencer	June 9	Aug. 17
Fort Collins	Colorado Agricultural College	S. A. Johnson	June 18	July 27
Greeley	State Teachers College of Colorado	James H. Hays	do.	Do.
Gunnison	State Normal School	James H. Kelley, M. A., D. Litt.	June 11	July 20
Tolland	School of Mountain Field Biology (University of Colorado).	Francis Ramaley	June 25	Aug. 5
University Park	University of Denver	W. D. Engle, Ph. D.	June 18	July 27
Woodland Park	Summer School of Surveying (Colorado College).	Frank M. Okey	June 6	July 2
CONNECTICUT.				
East Canaan	Clarence H. White School of Photography.	Clarence H. White (230 East Eleventh Street, New York, N. Y.).		
Greenwich	Fairhope Summer School of Organic Education.	Marietta L. Johnson	July 1	Aug. 15
Hartford	Hillyer Institute (Y. M. C. A.)	Harland F. Stuart	June 20	Aug. 1
New Haven	Berkeley Tutoring School	T. A. Tully, M. A.	Aug. 1	Sept. 22
Do	Massawippi Summer School[2]	Chas. Upson Clark, Ph. D.		
Do	New Haven Normal School of Gymnastics.	E. H. Arnold, M. D.	Aug. 13	Sept. 8
Do	University School	George L. Fox		
Norwalk	Harström School	C. A. Harström, Ph. D.	Aug. 1	Sept. 20
Redding Ridge	Sanford School	D. S. Sanford, M. A.	June 15	Sept. 15
Stamford	Thorpe School	E. O. Thorpe, M. A.	July 16	Sept. 7
Storrs	State Summer Normal School	Chas. D. Hine	July 9	Aug. 6
DELAWARE.				
Dover	State College for Colored Students	W. C. Jason	June 1	July 5
Newark	Delaware College	Geo. S. Counts	June 25	Aug. 5
DISTRICT OF COLUMBIA.				
Washington	Catholic Sisters College	T. E. Shields, Ph. D.	July 1	Aug. 6
Do	Emerson Institute	W. H. Randolph / A. McD. Crawford	June 15	Sept. 15
Do	George Washington University	William C. Ruediger	June 25	Aug. 4
Do	Mount St. Alban Summer School for Sunday School Workers.	Canon De Vries, Ph. D.	June 11	June 15
Do	National University Law School	Charles F. Carusi	June 19	Aug. 12
Do	Sallie Lewin's (Miss) Summer School.	Sarah Lewin	July 3	Sept. 15
Do	Y. M. C. A. Vacation School	Jas. Mangus, M. A.	June 27	Aug. 19

[1] No session in 1916.

[2] At North Hatley, Quebec in 1916.

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XVIII.—Summer School Directors—Continued.

Location.	Summer school.	Director or principal in 1916.	Probable date of session of 1917.	
			Opening.	Close.
FLORIDA.				
Gainesville	University of Florida	A. A. Murphree, LL.D.	June 15	Sept. 1
Madison	Florida Normal Institute	W. B. Cate	June 12	Do.
Tallahassee	Florida A. and M. College for Negroes.	Homer Thomas, M. A.	June 14	Aug. 6
Do	Florida State College for Women	Edward Conradi	June 11	Aug. 3
GEORGIA.				
Athens	University of Georgia	Thos. J. Woofter	July 2	Aug. 4
Atlanta	Georgia School of Technology	A. B. Morton	July 23	Sept. 13
Do	Southern University of Music	Kurt Mueller	June 18	July 28
College Park	Cox College	Wilber Colvin, LL. D.	June 23	July 29
Macon	Mercer University	J. G. Harrison, D. D.	June 12	Aug. 25
Mount Berry	Berry School			
Oxford	Emory University	E. K. Turner	June 20	Aug. 18
Valdosta	South Georgia State Normal College.	R. H. Powell	June 6	July 1
IDAHO.				
Albion	State Normal School	G. A. Axline	June 11	Aug. 10
Boise	Summer School for Teachers	C. E. Rose, M. A	June 18	July 25
Lewiston	State Normal School [1]		June 11	July 20
Moscow	University of Idaho	George H. Black	[2]	
Pocatello	Idaho Technical Institute	Miles F. Reed, M. A	June 12	July 21
ILLINOIS.				
Carbondale	Southern Illinois State Normal University.			
Carlinville	Blackburn University	Chas. W. Smith	June 11	July 20
Charleston	Eastern Illinois State Normal School.	Livingston C. Lord	June 18	July 27
Chicago (4200 Grand Boulevard).	American College of Physical Education.	M. A. Wood, M. E	June 27	Aug. 3
Chicago (600 South Wabash Avenue).	American Conservatory of Music (summer normal session).	John J. Hattstaedt	June 25	July 28
Chicago (Lincoln Center).	Applied Arts Summer School	Florence H. Fitch	July 5	July 26
Chicago	Armour Institute of Technology	H. M. Raymond	June 25	Aug. 3
Do	Art Institute of Chicago	T. J. Keane	...do...	Sept. 15
Do	Chicago Musical College	Felix Borowski	...do...	July 28
Do	Chicago Normal College	W. B. Owen	July 2	Aug. 3
Chicago (430 South Wabash Avenue).	Chicago Normal School of Physical Education.			
Chicago (310 Harvester Building).	Chicago School of Applied and Normal Art.			
Chicago	Chicago School of Civics and Philanthropy.	Graham Taylor	June 20	July 27
Do	Columbia School of Music	Clare Osborne Reed	June 25	Do.
Do	Cosmopolitan School of Music and Dramatic Art.	Mrs. W. S. Bracken	July 2	Aug. 4
Do	De Paul University	D. A. Duggan, M. A	June 27	Aug. 3
Chicago (6 North Michigan Avenue).	Gregg Summer Normal School	Henry J. Holm	July 2	Aug. 12
Chicago (122 South Michigan Avenue).	International College of Secretaries	Oliver McEwan	June 15	Sept. 1
Chicago	Lewis Institute	George N. Carman	July 2	Aug. 24
Do	Loyola University			
Chicago (2944 Michigan Boulevard).	National Kindergarten College	Elizabeth Harrison	June 18	Aug. 10
Chicago (330 East Twenty-second Street).	New School of Methods in Public School Music.	W. M. Morton	June 25	Aug. 1
Chicago (6800 Stewart Avenue).	Parker Summer School	Martha V. Bishop		
Chicago (616 South Michigan Boulevard).	Pestalozzi-Froebel Kindergarten Training School.	Bertha H. Hegner	June 25	Aug. 3
Chicago	School of Expression of Boston, Mass.	S. S. Curry, Ph. D		
Chicago (712 Fine Arts Building).	Sherwood Music School	Walter Keller	June 25	Aug. 4
Chicago	University of Chicago (2 terms)	Harry Pratt Judson	...do...	Do.
Chicago (1106 Lake Shore Drive).	University School for Girls (Summer School of Music).	C. B. Cady (Columbia University, New York, N. Y.).	June 20	July 30
Chicago (19 South La Salle Street).	Y. M. C. A. (central department)	Arthur L. Ward	June 18	Sept. 1

[1] Held at University of Idaho, Moscow, in 1916.

[2] To be held at Lewiston State Normal, in 1917.

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XVIII.—Summer School Directors—Continued.

Location.	Summer school.	Director or principal in 1916.	Probable date of session of 1917.	
			Opening.	Close.
ILLINOIS—continued.				
Chicago (1621 Division Street).	Y. M. C. A. (Division Street department).	James D. Ellis	July 1	Aug. 28
Chicago (1725 Wilson Avenue).	Y. M. C. A. (Wilson Avenue department).	Henry M. Mendelsohn	June 25	Aug. 25
De Kalb	Northern Illinois State Normal School.	John W. Cook	...do	Aug. 3
Evanston	American Institute of Normal Methods.	E. B. Birge	...do	July 14
Do	Northwestern University	C. S. Marsh	...do	Aug. 4
Lake Forest	National Summer School of Music	Ada M. Fleming	June 30	Do.
Lebanon	McKendree College	H. W. Hurt, LL. D.	June 11	Aug. 11
Lincoln	Lincoln State School and Colony	T. H. Leonard, M. D.	June 25	July 21
Macomb	Western Illinois State Normal School.	W. P. Morgan	June 9	July 20
Normal	Illinois State Normal University (2 terms).	David Felmley	June 11	Aug. 29
Peoria	Bradley Polytechnic Institute (Summer School of Manual Training and Domestic Economy).	Frederick H. Evans	June 18	July 21
Quincy	Gem City Business College	D. L. Musselman	June 4	Sept. 1
Urbana	University of Illinois	W. C. Bagley	June 18	Aug. 10
INDIANA.				
Angola	Tri-State College	Willis A. Fox	June 5	Aug. 24
Bloomington	Indiana University	J. J. Pettijohn	June 14	Aug. 10
Culver	Culver Military Academy	L. R. Gignilliat	June 28	Aug. 24
Danville	Central Normal College	J. W. Laird	May —	Aug. —
Goshen	Goshen College	Paul E. Whitmer	June 11	Aug. 23
Greencastle	De Pauw University	H. B. Gough	June 7	Do.
Hanover	Hanover College	Wm. A. Millis	May 7	July 27
Indianapolis	Butler College	Thomas C. Howe, Ph. D.	June 18	July 28
Do	Indiana Central University	H. W. Marshall	May 21	Aug. 10
Do	John Herron Art Institute	H. H. Brown	June 11	Sept. 1
Do	Normal College of the North American Gymnastic Union.	Emil Rath	July 9	Aug. 4
Do	Public Library Commission Summer School for Librarians.	Henry N. Sanborn	June 15	Aug. 1
Do	Teachers' College of Indianapolis (2 terms).	Eliza A. Blaker	May —	Sept. —
Do	Vocational Education Courses (Indiana University).	Robert J. Leonard	July 10	July 22
La Fayette	Purdue University (Summer School for Teachers in Agriculture, Home Economics, and Manual Training).	Geo. L. Roberts		
Marion	Marion Normal Institute			
Moores Hill	Moores Hill College	A. J. Bigney	June 7	Aug. 18
Muncie	Muncie National Institute	Frank M. Life	June 4	Aug. 17
North Manchester	Manchester College	Otho Winger, M. A.	May 28	Aug. 19
Notre Dame	St. Mary's College and Academy	Mother M. Cyriaca	July 2	Aug. 7
Oakland City	Oakland City College			
Rolling Prairie	Interlaken School Summer Camp	O. P. Pitts	June 22	Aug. 25
St. Mary-of-the-Woods	St. Mary-of-the-Woods College	Rev. Mother M. Cleophas.	July 1	Aug. 4
Terre Haute	Indiana State Normal School	W. W. Parsons	June 18	Aug. 31
Valparaiso	Valparaiso University			
Winona Lake	Indiana University Biological Station.	Fernandus Payne	June 18	Aug. 19
Do	Winona College	Jonathan Rigdon, Ph. D.	May 27	Aug. 16
IOWA.				
Ames	Iowa State College of Agriculture and Mechanic Arts (2 terms).	G. M. Wilson	June 11	Aug. 20
Cedar Falls	Iowa State Teachers College	Homer H. Seerley	June 6	Aug. 28
Cedar Rapids	Coe College	John A. Marquis, D.D., LL. D.	June 20	Aug. 27
Do	Palmer Method Summer School (Cedar Rapids Business College).	W. C. Henning	June 7	Aug. 1
Des Moines	Des Moines College	D. E. Cloyd, M. A.	June 11	Aug. 18
Do	Drake University (2 terms)	W. F. Barr, M. A.	...do	Aug. 24
Do	Highland Park College	A. E. Bennett	...do	Aug. 2
Dubuque	Catholic Sisters College [1]	T. E. Shields, Ph. D.	June 24	Do.
Fairfield	Parsons College	C. A. Gregory	June 15	Aug. 25
Fayette	Upper Iowa University (2 terms)	Ellsworth Lowry, M.A.	June 11	Aug. 18

[1] Dubuque extension of Catholic Sisters College of the Catholic University of America, Washington, D. C.

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XVIII.—Summer School Directors—Continued.

Location.	Summer school.	Director or principal in 1916.	Probable date of session of 1917.	
			Opening.	Close.
IOWA—continued.				
Indianola	Simpson College	Samuel Weir	June 11	Aug. 17
Iowa City	State University of Iowa	W. C. Wilcox, W. A. Jessup, C. E. Seashore	June 18	Aug. 25
Iowa Falls	Edgewood School of Domestic Arts.	Eva Simplot	June 5	Aug. 1
Do	Ellsworth College (2 terms)	I. Franklin Meyer	June 11	Aug. 18
Milford	Macbride Lakeside Laboratory	B. Shimek	June 15	July 26
Mount Pleasant	Iowa Wesleyan College	C. K. Hayes	June 13	July 22
Mount Vernon	Cornell College	George H. Betts, Ph.D.	June 15	Aug. 25
Shenandoah	Western Normal College	C. F. Garrett	May 29	Aug. 3
Sioux City	Morningside College	E. A. Brown, M. A.	June 11	Aug. 31
KANSAS.				
Atchison	Midland College	R. B. Peery		
Baldwin City	Baker University	Lilian Scott, M. A.	June 7	July 19
Emporia	Kansas State Normal School	Norman Triplett	...do	Aug. 2
Hays	Fort Hays Kansas Normal School			
Lawrence	University of Kansas (2 terms)	F. J. Kelly, Ph. D.	June 7	Aug. 15
Manhattan	Kansas State Agricultural College	E. L. Holton	June 22	Aug. 6
Pittsburg	State Manual Training Normal School.	W. A. Brandenburg	June 5	Aug. 3
Topeka	Shawnee County Teachers' Institute.	John F. Eby		
Do	Washburn College	P. P. Womer, D. D.	June 11	Aug. 14
Wichita	Fairmount College	W. G. Binnewies	June 5	July 18
Do	Friends University	H. E. Densford, M. A.	June 11	July 20
KENTUCKY.				
Bowling Green	Western Kentucky State Normal School.	H. H. Cherry	June 12	July 27
Lexington	State University of Kentucky	J. T. C. Noe, M. A.	June 14	July 26
Richmond	Eastern Kentucky State Normal School.	J. G. Crabbe	June 18	Do.
LOUISIANA.				
Amite	Florida Parishes State Normal	(1)	June 10	July 20
Baton Rouge	Louisiana State University	D. T. Powers, M. A.	June 11	Aug. 10
Do	Southern University and A. and M. College (negro).			
Covington	Florida Parishes State Normal	A. J. Caldwell	(2)	
La Fayette	Southwestern Louisiana Industrial Institute.	E. L. Stephens	June 4	Aug. 4
Natchitoches	Louisiana State Normal School	V. L. Roy	May 31	Aug. 8
New Orleans	Tulane University	A. B. Dinwiddie, Ph.D.	June 11	Aug. 11
Do	Tulane University School of Medicine.	Isadore Dyer, M. D.	...do	July 28
Ruston	Louisiana Industrial Institute	J. E. Keeny	June 6	July 27
Shreveport	Summer School for Teachers (Negro).	T. H. Kane	June 4	July 14
MAINE.				
Boothbay Harbor	Commonwealth School of Art and Industry.	Asa G. Randall	July 10	Sept. 1
Bridgton	Bullinger's Summer School	H. V. Bullinger	July 1	Do.
Do	Kingswood Camp (boys)	Ralph I. Underhill	...do	Do.
Castine	Eastern State Normal School	William D. Hall	July 16	Aug. 4
Eagle	Camp Penobsoot	S. B. Knowlton	July 1	Aug. 31
Farmington	Abbott Hill Recreation School	George D. Church, M.A.	July 14	Aug. 16
Fort Kent	Madawaska Training School	Mary P. Nowland		
Franklin	Camp Sylvaniawassee	J. E. De Meyer	June 30	Aug. 25
Gorham	Western State Normal School	W. E. Russell		
Kineo	Camp Wildwood	S. R. Hooper	June 28	Sept. 1
Machias	Washington State Normal School	W. L. Powers, M. A.	July 15	Aug. 3
Naples	Camp Keoka (boys)	C. S. Mitchell	July 1	Sept. 1
North Belgrade	Camp Kennebec	Charles E. Fox	June 29	Sept. 2
Do	Camp Merryweather	Henry Richards	June 30	Sept. 4
North Bridgton	Long Lake Lodge	Edwin V. Spooner	July 14	Sept. 9
Ogunquit	Summer School of Modeling	Victor David Brenner	July 10	Aug. 21
Orono	University of Maine	James S. Stevens	June 25	Aug. 3
Oxford	Camp Kohut (boys)	Geo. A. Kohut, Ph. D.	July 1	Sept. 3
Presque Isle	Aroostook State Normal School	S. L. Merriman	July 19	Aug. 26
South Hope	Alford Lake Camp for Girls	Alice Pierce	June 28	Aug. 25

[1] Held at Covington in 1916.

[2] To be held at Amite in 1917.

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XVIII.—Summer School Directors—Continued.

Location.	Summer school.	Director or principal in 1916.	Probable date of session of 1917.	
			Opening.	Close.
MAINE—continued.				
Technology	Surveying Camp of Massachusetts Institute of Technology.	A. G. Robbins	July 24	Sept. 14
Unity	Camp Winnecook (boys)	Herbert L. Rand	July 2	Aug. 31
Wayne	Camp Androscoggin (boys)	E. M. Healy (Pratt Institute, Brooklyn, N. Y.)	June 30	Sept. 2
Winthrop	Camp Cobbossee	H. R. Mooney	July 1	Sept. 1
MARYLAND.				
Baltimore	Association Institute (Y. M. C. A.)	M. A. Clemens	June 8	Aug. 15
Do	Johns Hopkins University	E. F. Buchner	June 26	Aug. 7
Do	Peabody Conservatory of Music	Frederick R. Huber	July 1	Aug. 12
College Park	Maryland State College of Agriculture.	J. E. Metzger	June 25	Aug. 3
Princess Anne	Princess Anne Academy (Negro)	T. H. Kiah	June 25	Aug. 3
MASSACHUSETTS.				
Amherst	Graduate School of Agriculture (Association of American Agricultural Colleges and Experiment Stations).	A. C. True (Department of Agriculture, Washington, D. C.)	[1]	
Do	Massachusetts Agricultural College:			
	Boys' Agricultural Camps (3 terms).	Wm. D. Hurd	July 2	July 27
	Girls' Camp for Prize Winners	do	do	Do.
	School for Rural Social Service	do	do	Do.
	Summer School of Agriculture and Country Life.	do	do	Do.
Auburndale	American Institute of Normal Methods (Silver, Burdett & Co., Boston, Mass.).	Osborne McConathy	July 5	July 26
Belmont	Camp Mooswa [2]	Geo. H. Cain		
Boston	Boston Floating Hospital Postgraduate Course for Nurses.	Sarah A. Egan	June 27	Sept. 15
Do	Boston University	A. H. Rice	July 1	Aug. 12
Do	Emerson College of Oratory	Walter B. Tripp	July 11	Aug. 5
Do	Faelten Pianoforte School	Carl Faelten	June 15	Sept. 16
Do	Harvard Graduate School of Medicine.	Horace D. Arnold, M. D.	June 1	Sept. 30
Do	Huntington School (Y. M. C. A.)	C. H. Sampson	June 25	Aug. 31
Do	Posse Normal School of Gymnastics	Hartvig Nissen	June 27	July 28
Boston (585 Boylston Street).	School of Eugenics	Evangeline W. Young	July 9	Aug. 3
Boston (306 Pierce Building).	School of Expression (4 terms)	S. S. Curry, Ph. D		
Boston	Simmons College	H. Lefavour, Ph. D	July 2	Aug. 10
Bourne	Old Colony Union Industrial School	Marie T. Garland	June 21	Oct. 14
Brewster	Sea Pines Personality Camp (girls)	Thomas Bickford / Faith Bickford	July 8	Aug. 22
Cambridge (8 Everett Street).	Cambridge Normal School of Dancing.	Fannie Faulhaber	June 6	July 30
Cambridge	Harvard University	K. G. T. Webster, Ph. D.	July 2	Aug. 11
Do	Massachusetts Institute of Technology.	R. C. Maclaurin, LL. D.	June 11	Sept. 15
Fitchburg	State Normal School	John G. Thompson, M. A.	July 5	Aug. 25
Hyannis	do	W. A. Baldwin	July 6	Aug. 6
Lowell	Y. M. C. A. Summer School	J. E. Barr	do	Sept. 16
Malden	Y. M. C. A. Summer School	Cora H. Dempsey		
Melrose	do	G. W. Williams	June 25	Aug. 3
Monterey	Berkshire Summer School of Art	Raymond P. Ensign / Ernest W. Watson	July 9	Aug. 17
Northampton	Institute of Music Pedagogy	G. O. Bowen / R. L. Baldwin	do	July 21
Oak Bluffs	Treat School	Edwin B. Treat	July 1	Oct. 1
Provincetown	Cape Cod School of Art	Charles W. Hawthorne	July 2	Aug. 25
Do	Summer School of Drawing and Painting.	E. Ambrose Webster	June 1	Oct. 1
Somerville	Y. M. C. A. Summer School			
South Orleans	"Quanset," Cape Cod Camp for Girls.	Mrs. E. A. W. Hammatt.	June 1	Do.
Springfield	Y. M. C. A. Summer School	Bernice W. Dearborn	July 9	Aug 19

[1] Held biennially in different institutions. [2] Held at Lake Annis, Nova Scotia, in 1916.

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XVIII.—Summer School Directors—Continued.

Location.	Summer school.	Director or principal in 1916.	Probable date of session of 1917.	
			Opening.	Close.
MASSACHUSETTS—con.				
Vineyard Haven	Martha's Vineyard School of Art	A. R. Freedlander	July 1	Aug. 15
Wellesley	Les Cours Française de Wellesley	M. Louis Perdriau	July 5	Aug. 5
Woburn	Warren Academy Free Industrial School.	Frank Carter	May 19	Aug. 12
Woods Hole	Marine Biological Laboratory	F. R. Lillie	June 27	Aug. 7
MICHIGAN.				
Adrian	Adrian College	H. B. Hayes	...do...	Aug. 9
Ann Arbor	University of Michigan	Edward H. Kraus	July 2	Aug. 24
Battle Creek	Normal School of Physical Education.	F. J. Born, M. A	July 5	Aug. 15
Bay View	Bay View Summer University	Trumbull White	July 17	Aug. 25
Berrien Springs	Emmanuel Missionary College	Otto J. Graf, M. A	June 14	Aug. 8
Big Rapids	Ferris Institute (2 terms)	W. N. Ferris	July 1	Aug. 9
Detroit	Cass Technical High School	E. G. Allen, J. L. Holtsclaw	June 27	Aug. 19
Do	Detroit Conservatory of Music	Francis L. York, M. A.	June 25	July 28
Do	Detroit Technical Institute (Y. M. C. A.).	B. D. Edwards	June 18	Aug. 10
Do	School of Fine Arts	J. P. Wicker	...do...	Sept. 15
East Lansing	Michigan Agricultural College	E. H. Ryder	June 20	July 30
Fountain	Kenmore Institute[1]		July 1	Sept. 1
Grand Rapids	Grand Rapids Kindergarten Training School.			
Kalamazoo	Western State Normal School	Dwight B. Waldo, LL. D.	July 1	Do.
Marquette	Northern State Normal School	James H. Kaye, M. A.	June 26	Aug. 5
Meauwataka	Forestry School (Michigan Agricultural College).	A. K. Chittenden	June 18	July 28
Mount Pleasant	Central State Normal School	C. T. Grawn	June 25	Aug. 3
Saugatuck	Summer School of Painting	Walter M. Clute		
Topinabee	University of Michigan Biological Station.	O. C. Glaser	July 2	Aug. 24
Ypsilanti	Michigan State Normal College	Charles McKenny, LL. D.	June 25	Aug. 3
MINNESOTA.				
Bemidji	County Teachers' Training School	W. P. Dyer	June 12	July 22
Crookston	State Teachers' Training School (Northwest School of Agriculture).	C. G. Selvig	June 14	July 24
Duluth	County Teachers' Training School	J. E. Lunn		
Do	State Normal School	E. W. Bohannon	June 15	July 25
Faribault	Courses in Mental Deficiency (Minnesota School for Feeble-Minded).	F. Kuhlmann	June 26	Aug. 5
Do	Shattuck School (boys)	John Hersey Wheeler, M. A.	June 21	Aug. 1
Fergus Falls	County Teachers' Training School	J. H. Hay	June 19	July 22
Le Sueur	...do...	H. L. Merrill		
Little Falls	...do...	H. E. White		
Mankato	State Normal School	Charles H. Cooper, M. A.	June 11	July 20
Minneapolis	Minneapolis School of Art	C. F. Ramsey	June 18	July 28
Do	Minneapolis School of Music, Oratory, and Dramatic Art.			
Do	Minnesota College			
Do	Summer School for Librarians (Minnesota Public Library Commission).	Clara F. Baldwin	June 11	July 20
Do	University of Minnesota	L. D. Coffman	June 18	July 28
Moorhead	State Normal School	Frank A. Weld	June 11	July 20
Morris	State Teachers' Training School (West Central School of Agriculture).	C. H. Barnes	June 18	July 27
Roseau	County Teachers' Training School	J. A. Cederstrom		
St. Cloud	State Normal School	Isabel Lawrence	June 11	Do.
St. Paul	Globe Business College	J. O. Weaver	June 15	Sept. 1
Do	Lancaster Business Institute	O. V. Simon	June 1	Do.
Do	University of Minnesota College of Agriculture and State Teachers' Training School.	A. V. Storm	June 18	July 30
Wadena	County Teachers' Training School	G. A. Foster	June 25	July 22
Winona	College of Saint Teresa	Sr. M. Adelaide	July 2	Aug. 14
Do	State Normal School	G. E. Maxwell	June 11	July 20

[1] No session in 1916.

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XVIII.—Summer School Directors—Continued.

Location.	Summer school.	Director or principal in 1916.	Probable date of session of 1917.	
			Opening.	Close.
MISSISSIPPI.				
Agricultural College	Mississippi A. and M. College	J. C. Robert	June 5	July 15
Blue Mountain	State Summer Normal	W. T. Lowrey	June 1	July 5
Clinton	Clinton Summer Normal	J. W. Provine, Ph. D.	...do...	July 15
Hattiesburg	Mississippi Normal College	Joe Cook	May 28	July 6
Meridian	East Mississippi Normal	P. S. Mangum	June 26	Aug. 4
Newton	Newton Summer Normal	A. S. McClendon	July 1	Aug. 15
Perkinston	Coast Normal			
Shelby	Industrial Agricultural College for Negroes.			
University	University of Mississippi	J. C. Fant	June 5	July 15
MISSOURI.				
Cameron	Missouri Wesleyan College	A. B. Cope, M. A.	June 11	Aug. 4
Cape Girardeau	State Normal School	W. S. Dearmont	May 1	Aug. 10
Columbia	University of Missouri	Joseph D. Elliff	June 7	Do.
Kirksville	State Normal School	John R. Kirk, LL. D.	May 30	Aug. 8
La Grange	La Grange College	N. E. Winfrey	June 4	Aug. 11
Marshall	Missouri Valley College	Albert McGinnis	...do...	Do.
Maryville	State Normal School	Ira Richardson	...do...	Aug. 2
Rolla	State School of Mines and Metallurgy.	A. L. McRae	May 28	July 7
St. Louis	Forest Park College School of Music.	Anna S. Cairns	June 1	Sept. 19
Do.	Harris Teachers College	Ben Blewett		
Do.	St. Louis University School of Medicine.	D. M. Schoemaker, M. D.	June 1	July 8
Springfield	State Normal School	W. T. Carrington	May 25	Aug. 1
Warrensburg	...do...	E. L. Hendricks, LL. D.	May 29	Aug. 3
Warrenton	Central Wesleyan College	Henry Vosholl, M. A.	June 11	
MONTANA.				
Alpine	Rosebud Camp School	Rosa Dell	July 11	Aug. 20
Bozeman	Montana State College of Agriculture and Mechanic Arts.	J. H. Holst	June 13	July 22
Dillon	Montana State Normal College	J. E. Monroe	June 5	Aug. 24
Great Falls	County Summer School	Annie A. McAnelly	Aug. 7	Aug. 26
Kalispell	...do...	J. T. Sauntry	July 24	Aug. 31
Lewistown	...do...	Leila M. Baker	Aug. 10	Aug. 24
Missoula	University of Montana	J. P. Rowe	June 11	July 20
Polson	University of Montana Biological Station.	M. J. Elrod	June 19	Aug. 19
Sidney	County Summer School [1]	R. H. Brown	July 1	Aug. 1
NEBRASKA.				
Bellevue	Bellevue College [2]			
Chadron	State Normal School	Joseph Sparks	June 4	July 27
Collegeview	Union College	Harvey A. Morrison, M. A.	May 22	July 25
Fremont	Fremont College	W. H. Clemens	June 9	Aug. 15
Hastings	Hastings College	R. B. Crone	June 15	Aug. 12
Kearney	State Normal School	George S. Dick	June 4	July 27
Lincoln	Teachers' College High School	Chas. W. Taylor	June 3	July 26
Do.	University of Nebraska	Samuel Avery	June 11	Aug. 3
Omaha	Creighton University	Paul L. Martin	June 22	Aug. 4
Do.	University of Omaha	Selma Anderson, M. A.	June 17	Aug. 9
Peru	State Normal School	D. W. Hayes, M. A.	June 11	Aug. 3
University Place	Nebraska Wesleyan University	B. E. McProud	June 6	July 28
Wayne	State Normal School	U. S. Conn	June 4	July 27
York	York College	Charles Bisset	June 11	Aug. 3
NEVADA.				
Reno	University of Nevada	George Francis James, Ph. D.	June 17	July 26
NEW HAMPSHIRE.				
Ashland	Camp Aloha (boys)	James Malcolm Kendall.	July 23	Sept. 17
Bristol	Pasquaney Nature Club (girls)	Laura H. Hassan	July 1	Sept. 1
Chesham	Marienfeld (summer camp)	Stacy P. Southworth, R. J. Shortlidge	...do...	Do.
Enfield	Camp Rockland (Rockland Military Academy).			

[1] To be held at Glendive in 19 7.

[2] No session in 1916.

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XVIII.—Summer School Directors—Continued.

Location.	Summer school.	Director or principa in 1916.	Probable date of session of 1917.	
			Opening.	Close.
NEW HAMPSHIRE—con.				
Fitzwilliam	South Pond Cabins	Rollin M. Gallagher	July 6	Aug. 31
Hanover	Dartmouth College	J. L. McConaughy, Ph. D.	July 5	Aug. 15
Holderness	Camp Wachusett (boys)	Rev. Lorin Webster, L. H. D.	July 2	Sept. 3
Jackson	Thorn Mountain Tutoring School and Camp (boys).	George A. Bushee	July 1	Aug. 31
North Sutton	Camp Penacook	R. B. Mattern	July 3	Aug. 30
Peterboro	Outdoor Players	Marie Ware Langhton	July 5	Aug. 31
Pike (R. F. D. 1)	Camp Moosilauke (boys)	Virgil Prettyman, Ph. D.	June 28	Aug. 30
Plymouth	State Normal School	Ernest Leroy Silver	July 5	Aug. 25
South Chatham	Hill's (Mrs.) Summer School of Cookery.	Janet M. Hill	...do	Aug. 3
West Ossipee	Camp Wellesley (boys)	Edward A. Benner	July 6	Aug. 31
Wolfeboro	Wolfeboro Camp	E. C. Durfee	July 10	Sept. 4
NEW JERSEY.				
Allenhurst	Rand Summer School	E. W. Rand, M. A	June 1	Oct. 9
Bloomfield	Carteret School	Joseph C. Wilson	July 6	Aug. 11
Collinswood	State Summer School	T. D. Sensor, M. A	July 2	Aug. 9
Hoboken	Stevens Institute of Technology	A. Riesenberger	Aug. 13	Sept. 8
New Brunswick	Rutgers College	Charles H. Elliott, Ph. D.	July 2	Aug. 10
Newton	State Summer School	T. D. Sensor, M. A	...do	Do.
Ocean City	...do	...do	...do	Aug. 3
Phillipsburg	...do	...do	...do	Aug. 11
Princeton	College Summer School	E. A. Gross	July 6	Sept. 1
Princeton (15 University Place).	Princeton Summer School	C. R. Morey	July 25	Sept. 16
Princeton	Princeton Theological Seminary	J. Ross Stevenson, D. D.		
Do	Princeton Tutors' Association	Frank Fritts, Ph. D	Aug. 1	Sept. 26
Do	University Summer School	Garret S. Voorhees	July 23	Sept. 15
Vineland	Summer School for Teachers of Backward or Mentally Deficient Children.	E. R. Johnstone	July 9	Aug. 18
NEW MEXICO.				
Clovis	Curry County Normal			
East Las Vegas	New Mexico Normal University	F. H. H. Roberts	June 5	July 26
Santa Fe	School of American Archæology	Edgar L. Hewett	Aug. 1	Aug. 31
Silver City	New Mexico State Normal School	E. L. Enloe, M. Pd	June 1	July 22
NEW YORK.				
Albany	New York State Library School	J. I. Wyer	June 6	July 18
Alfred	Alfred University	Paul E. Titsworth, Ph. D.	July 2	Aug. 10
Auburn	Auburn Theological Seminary: Summer School for Christian Workers.	G. B. Stewart, D. D., LL. D.	July 30	Aug. 11
	Summer School of Theology	...do	July 9	July 28
Bronxville	Masses Summer Tutoring School	W. W. Massee	July 1	Sept. 22
Brooklyn	Adelphi College	A. G. Fradenburgh	July 5	Aug. 16
Do	Bedford Y. M. C. A. Vacation School.	Walter S. Meyer	...do	Aug. 24
Do	Central Y. M. C. A. Summer School.	Melsom S. Tuttle	June 25	Do.
Catskill	Kyle Camp (boys)	Paul Kyle, Ph. D	July 1	Sept. 1
Chautauqua	Chautauqua Summer School	Percy H. Boynton	July 7	Aug. 17
Cliff Haven	Catholic Summer School of America.	John P. Chidwick, D.D.		
Clinton	Hamilton College	C. L. Lewis	July 9	Do.
Cold Spring Harbor	Brooklyn Institute of Arts and Sciences, Biological Laboratory.	Chas. B. Davenport, Ph. D.	July 4	Aug. 15
Cornwall on the Hudson.	New York Military Academy	S. C. Jones	June 25	Aug. 26
Cortland	Cortland Summer School	Luke J. McEvoy	June 26	Aug. 3
Elmira	Welgester Summer School of Vocal Music.	R. G. Welgester	July 5	Aug. 30
Geneseo	State Normal School	J. V. Sturges, D. Sc	July 9	Aug. 17
Ithaca	Cornell University	Geo. P. Bristol	...do	Do.
Monroe	Mackenzie School	James C. Mackenzie	July 5	Sept. 1
New Rochelle	College of New Rochelle	Sr. M. Xavier, M. A	July 2	Aug. 10

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XVIII.—Summer School Directors—Continued.

Location.	Summer school.	Director or principal in 1916.	Probable date of session of 1917.	
			Opening.	Close.
NEW YORK—continued.				
New York (114 West Seventy-second St.).	American Progressive Piano School.	Gustav L. Becker	June 15	Aug. 5
New York (American Fine Arts Building).	Art Students League	John F. Carlson	June 4	Oct. 30
New York (541 Lexington Avenue).	Bible Teachers Training School	John A. Wood	June 20	July 31
New York (241 West Seventy-fifth Street).	Brown School of Tutoring	F. L. Brown	July 1	Sept. 20
New York (7 West Forty-second Street).	Chalif Normal School of Dancing	Louis H. Chalif	May 28	July 20
New York	Columbia University	J. C. Egbert, Ph. D.	July 9	Aug. 17
New York (7 West Forty-second Street).	Gilbert Normal School of Dancing	Susan H. Gilman	June 11	July 20
New York (Sixty-eighth Street and Park Avenue).	Hunter College of the City of New York.	R. B. Earle, D. Sc.	July 5	Aug. 22
New York (One hundred and ninth Street and Amsterdam Avenue).	National Academy of Design	Robert Aitken	June 4	Aug. 30
New York (135 East Fifty-second Street).	National Training School (Y. W. C. A.).	Elizabeth Wilson, M.A.	July 6	Aug. 17
New York (105 East Twenty-Second Street).	New York School of Philanthropy: Institute for Tuberculosis Workers.	Philip P. Jacobs	June 1	June 30
	Institute for Workers in the Field of Family Welfare.	Porter R. Lee	...do	Do.
	Institute in Social Work for the Handicapped Child.	Henry W. Thurston	...do	Do.
New York	New York University	James E. Lough	July 2	Aug. 10
New York (30 Irving Place).	Palmer Method School of Penmanship.	S. E. Bartow	July 5	Aug. 2
Oneonta	State Normal School	P. J. Bugbee	July 9	Aug. 17
Port Henry	Repton Camp (boys)	O. C. Roach	July 1	Aug. 31
Port Jefferson	New York School of Fine and Applied Art.	F. A. Parsons		
Rochester	Mechanics Institute	George M. Lattimer	June 25	Aug. 3
Rome	Training School for Teachers of Feeble-Minded.	Mary I. Douglass	July 2	July 28
Saranac Lake	Adirondack Summer School	J. Liberty Tadd, Pd.D.	June 1	Sept. 30
Saratoga Springs	Skidmore School of Arts	Sarah G. Ross	July 2	Aug. 10
Shady	Summer School of Figure Painting (Fellowship of the Blue Dome).	Dewing Woodward		
Shandaken	Rushing Waters Camp (boys)	R. L. Marsans	June 15	Sept. 15
Silver Bay	Eastern Association School (Y. M. C. A.).	Fred S. Goodman	Aug. 1	Aug. 29
Sodus Point	Camp Fitzhugh	A. G. Warren, M. A.	July 1	Sept. 1
Syracuse	Syracuse University	Edgar C. Morris, M. A.	July 9	Aug. 17
Troy	Rennselaer Polytechnic Institute	P. C. Ricketts	June 11	Sept. 8
Willsboro	Camp Pok-O'-Moonshine (boys) (Peekskill Military Academy).	Chas. A. Robinson, Ph. D.	July 1	Aug. 30
Woodstock	Summer School of Landscape Painting (Art Students League of New York).	John F. Carlson	June 1	Nov. 1
NORTH CAROLINA.				
Asheville	School of Expression of Boston, Mass.	S. S. Curry, Ph. D. (Boston, Mass.).		
Blue Ridge	Missionary Education Movement	H. S. Myers (156 Fifth Avenue, New York City).	June 22	July 1
Do	Southern Summer School (Y. M. C. A.).	R. H. King (Charleston, S. C.).	July 6	July 20
Do	Southern Summer School of Social Service and Christian Workers.	W. D. Weatherford	Aug. 7	Aug. 31
Boone	Appalachian Training School	B. B. Dougherty	June 1	Aug. 20
Brevard	Brevard Institute	L. B. Haynes, M. A.	June 5	July 15
Do	Camp Sapphire	R. A. Fetzer, M. A. / W. M. Fetzer	June 28	Aug. 23
Do	French Broad Camp	Maj. H. E. Raines	July 1	Aug. 26
Chapel Hill	University of North Carolina	N. W. Walker	June 19	Aug. 2
Cullowhee	Cullowhee Normal and Industrial School.			
Elizabeth City	State Normal School	P. W. Moore	July 1	Aug. 1
Greensboro	Negro Agricultural and Technical College.	S. B. Jones	June 25	July 28

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XVIII.—SUMMER SCHOOL DIRECTORS—Continued.

Location.	Summer school.	Director or principal in 1916.	Probable date of session of 1917.	
			Opening.	Close.
NORTH CAROLINA—CON.				
Greenville	East Carolina Teachers Training School.	C. W. Wilson	June 12	Aug. 4
Raleigh	City public schools	Frank M. Harper	June 11	July 20
Wake Forest	Wake Forest College	W. L. Poteat	June 4	Aug. 24
Winston-Salem	Slater State Normal and Industrial School (negro).	S. G. Atkins		
NORTH DAKOTA.				
Agricultural College	North Dakota Agricultural College:			
	College section	Arland D. Weeks	June 13	July 20
	Elementary section	Alfred H. Parrott, M.A.	...do....	Do.
Dickinson	Summer School for Teachers	P. S. Berg	June 17	Do.
Ellendale	State Normal and Industrial School.	R. M. Black	June 13	Do.
Jamestown	Jamestown College	Wm. B. Thomas	June 25	Aug. 10
Mayville	State Normal School	Thos. A. Hillyer	June 28	Do.
Minot	....do	Wm. F. Clark	...do....	Aug. 7
University	University of North Dakota:			
	College section	A. J. Ladd, Ph. D.	June 25	Aug. 8
	Elementary section	C. C. Schmidt, M. S.	...do....	Do.
Valley City	State Normal School	George A. McFarland, M. A.	June 28	Aug. 8
Wahpeton	Training School for Teachers (State School of Science).	Edward H. Jones, M.A.	June 19	July 27
OHIO.				
Ada	Ohio Northern University	S. D. Davis	June 1	Aug. 15
Alliance	Mount Union College	W. H. McMaster	June 25	Aug. 3
Athens	Ohio University	J. J. Richeson, Ped. D.	June 23	Do.
Berea	Baldwin-Wallace College	F. D. Ward	June —	Aug. —
Bluffton	Bluffton College	N. E. Byers, M. A.	June 5	Aug. 20
Bowling Green	State Normal College (2 terms)	H. B. Williams	May 7	Aug. 3
Cedar Point	Lake Laboratory (Ohio State University).	F. H. Krecker	June 18	July 27
Cedarville	Cedarville College	Rev. W. R. McChesney, Ph. D.	do.	Do.
Cincinnati	Art Academy of Cincinnati	J. H. Gest	June 20	Aug. 29
Do	Ohio Mechanics Institute	John L. Shearer, M.A.	June 25	Aug. 3
Cleveland	Case School of Applied Science	C. S. Howe, LL. D.	July 2	Aug. 10
Do	Cleveland School of Education	R. W. Himelick	June 19	July 28
Do	Night Preparatory School[1]		June 26	Sept. 1
Columbus	Capital College of Oratory and Music.	Frank S. Fox, Ph. D.	June 8	Aug. 1
Do	Ohio State University	M. Blakemore Evans	June 18	Aug. 10
Do	Y. M. C. A. Summer School	F. W. McCann	June 27	Aug. 15
Defiance	Defiance College	P. W. McReynolds, M. A., D. D.	May 7	July 27
Findlay	Findlay College Normal School	Rev. H. S. Brinser, M. Pd.	May 2	July 28
Granville	Denison University	C. E. Goodell	June 18	July 27
Hamilton	Y. M. C. A. Summer School	C. B. Atkin	June 26	Aug. 11
Kent	State Normal College	J. E. McGilvrey	May 7	Aug. 5
Lebanon	Lebanon University (3 terms)	H. E. Cunningham	May 21	Aug. 11
New Concord	Muskingum College	Howard McDonald	June 18	Aug. 10
Oberlin	Oberlin Business College	J. T. Henderson		
Do	Oberlin College	S. F. MacLennan	June 15	Aug. 2
Oxford	Miami University	H. C. Minnich	June 11	Aug. 31
Rio Grande	Rio Grande College	W. G. Scarberry	June 25	Aug. 5
Springfield	Wittenberg College	T. Bruce Birch, Ph. D.	...do....	Aug. 3
Tiffin	Heidelberg University	E. I. F. Williams	June 19	July 27
Westerville	Otterbein University	R. H. Wagoner	June 18	Do.
West Lafayette	West Lafayette College	A. G. Steele, Ph. D.,	[2]	
Wilberforce	Wilberforce University (Negro)	Gilbert H. Jones	June 20	Aug. 1
Willoughby	Andrews Institute for Girls	S. D. Shankland	June 18	July 27
Wooster	College of Wooster	J. H. Dickason	...do....	Aug. 10
Yellow Springs	Antioch College			
OKLAHOMA.				
Ada	East Central State Normal School	J. M. Gordon	May 29	Aug. 1
Altus	Jackson County Normal Institute	W. H. Decker	Aug. 1	Sept. 1
Alva	Northwestern State Normal School.	Grant B. Grumbine	May 24	July 31
Buffalo	Harper County Normal Institute	J. S. Westhafer	July 2	July 28
Durant	Southeastern State Normal School	T. D. Brooks	May 28	Aug. 3
Edmond	Central State Normal School	Charles Evans, LL. D.	May 31	Aug. 4
Goodwell	Panhandle Agricultural Institute	J. F. Sharp	May 21	July 27

[1] Controlled by Baldwin-Wallace College, Berea, Ohio.

[2] No session in 1917.

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XVIII.—Summer School Directors—Continued.

Location.	Summer school.	Director or principal in 1916.	Probable date of session of 1917.	
			Opening.	Close.
OKLAHOMA—contd.				
Norman	University of Oklahoma	W. W. Phelan, Ph. D.	June 11	Aug. 3
Pawhuska	Osage County Normal Institute	W. M. Sinclair	June 1	June 26
Ponca City	Kay County Normal Institute	A. J. Lovett	June 4	June 30
Stillwater	Oklahoma A. and M. College	John H. Bowers, Ph. D.	June 1	July 30
Tahlequah	Northeastern State Normal School	G. W. Gable	May 22	July 28
Tonkawa	University Preparatory School	W. C. French	May 1	Do.
Waurika	Jefferson County Normal Institute	John Dyer	June 5	July 1
Weatherford	Southwestern State Normal School	J. B. Eskridge	May 29	Aug. 3
OREGON.				
Corvallis	Oregon Agricultural College	Edwin D. Ressler	June 11	July 21
Do	Boys' and Girls' Course in Agriculture and Home Economics.	....do	June 18	June 29
Eugene	University of Oregon	Joseph Schafer, Ph. D.	June 20	July 29
Monmouth	Oregon Normal School	J. H. Ackerman	June 18	July 27
Oregon City	Clackamas County Summer School	J. E. Calavan	Aug. 1	Aug. 22
Portland	Northwestern Normal School of Music and Art.	Z. M. Parvin	July 9	July 31
Do	Summer School of Primary Methods	Ruby E. Shearer	July 2	July 14
Salem	Capital Normal and Industrial School.	J. J. Kraps	Apr. 2	June 27
PENNSYLVANIA.				
Allentown	Muhlenberg College	W. H. Reese, D. Sc.	July 6	Aug. 16
Beaver Falls	Geneva College	Harry H. Wylie, M. A.	[1] June 18	Aug. 24
Brush Valley	Mechanicsburg Summer Normal	H. E. Anderson	May 1	July 1
Collegeville	Ursinus College	W. A. Kline, M. A., Litt. D.	June 18	July 27
Easton	Summer School of Surveying (Lafayette College).	J. Madison Porter	June 9	July 1
Fort Washington	Darby School of Painting	H. H. Breckenridge	June 4	July 28
Grove City	Grove City College (2 terms)	W. C. Ketler	June 19	Aug. 17
Lancaster	Franklin and Marshall Academy	Jos. A. Rothermel	June 18	July 27
Meadville	Meadville Theological School: Institute for Religious Education.	F. C. Southworth, D. D.	July 5	July 21
	Institute of Social Service and Social Reform.	....do	Aug. 14	Sept. 15
Millersville	State Normal School	P. M. Harbold	June 25	Aug. 3
Muncy	Lycoming County Normal	S. B. Dunlap	June 15	Aug. 25
Myerstown	Albright College	A. E. Gobole, M. A., D. D.	June 18	July 27
Philadelphia	Brown Preparatory School	Alonzo Brown	June 21	Sept. 1
Do	Neff College	Silas S. Neff, Ph. D.	June 19	July 28
Do	Peirce School	L. B. Moffett	July 2	Aug. 10
Do	Pennsylvania Museum School of Industrial Art.	Otto Frederick Ege	July 10	Aug. 5
Do	Pennsylvania Orthopaedic Institute and School of Mechanotherapy.	C. M. Seltzer	July 5	Nov. 4
Do	Temple University	R. H. Conwell, D. D.	...do	Aug. 15
Do	University of Pennsylvania	O. L. Shinn	July 9	Aug. 17
Do	Y. M. C. A. (Central branch)	J. Leeds Clarkson	June 25	Aug. 9
Pittsburgh (Mount Oliver).	King's School of Oratory	Byron W. King	June 11	July 20
Pittsburgh	University of Pittsburgh	S. B. Linhart, D. D.	[2] July 2	[2] Aug. 25
Scranton	Y. M. C. A. Summer School	Rossman I. Vail	June 27	Aug. 12
Selinsgrove	Susquehanna University	Geo. E. Fisher, Ph. D.	June 25	Aug. 3
Shippensburg	Cumberland Valley State Normal School.	J. S. Heiges	July 2	Aug. 16
South Bethlehem	Lehigh University	H. S. Drinker	July —	Sept. 11
State College	Pennsylvania State College	E. R. Smith, Ph. D.	June 25	Aug. 3
Swarthmore	Swarthmore Preparatory School	A. H. Tomlinson	June 18	Sept. 1
West Chester	State Normal School	Geo. Morris Philips	June 25	Aug. 3
RHODE ISLAND.				
Providence	Y. M. C. A. Summer School	J. G. Olmstead	July 1	Aug. 20

[1] Normal courses close July 28.

[2] School of Engineering, June 19–Aug. 26.

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XVIII.—Summer School Directors—Continued.

Location.	Summer school.	Director or principal in 1916.	Probable date of session of 1917.	
			Opening.	Close.
SOUTH CAROLINA.				
Columbia	University of South Carolina	W. H. Hand		
Orangeburg	State A. and M. College (Negro)	R. S. Wilkinson, Ph.D.	June 25	July 27
Rock Hill	Winthrop Normal and Industrial College.	David B. Johnson	June 19	Do.
Spartanburg	Wofford College Fitting School			
SOUTH DAKOTA.				
Aberdeen	Northern Normal and Industrial School (2 terms).	W. E. Johnson	June 4	Aug. 24
Brookings	South Dakota State College of Agriculture and Mechanic Arts.	E. D. Stivers	June 11	July 20
Huron	Huron College	Chas. W. Hochstetler, M. A.	June 12	July 21
Madison	State Normal School	B. M. Lawrence	June 10	Aug. 30
Mitchell	Dakota Wesleyan University	Hilton Ira Jones, Ph.D.	June 11	July 22
Sioux Falls	Lutheran Normal School	S. A. Jordahl	...do...	Do.
Spearfish	State Normal School			
Springfield	...do...	G. G. Wenzleff, M. A., LL. D.	June 27	July 31
Vermillion	University of South Dakota	W. Franklin Jones, Ph. D.	June 19	July 29
Yankton	Yankton College	G. H. Scott	June 11	July 20
TENNESSEE.				
Chattanooga	University of Chattanooga	David R. Lee	June 5	June 30
Harrogate	Lincoln Memorial University	T. B. Ford, M. A.	May 14	Aug. 3
Johnson City	East Tennessee State Normal School.	S. G. Gilbreath	June 5	July 14
Knoxville	Summer School of the South (University of Tennessee).	Brown Ayres, Ph. D.	June 19	July 27
Memphis	West Tennessee State Normal School.	J. W. Brister	June 11	July 20
Murfreesboro	Middle Tennessee State Normal School.	R. L. Jones, M. A.	June 4	July 14
Nashville	George Peabody College for Teachers.	B. R. Payne, Ph. D.	June 15	Aug. 25
Do	State Agricultural and Industrial Normal School for Negroes.	W. J. Hale	June 11	July 13
Do	Summer School of Philanthropy (American Interchurch College).	H. H. Hibbs, jr		
Sewanee	University of the South	T. N. Ware	June 16	Aug. 30
Waiting	Webb Summer School	E. T. Price	June 1	Aug. 8
TEXAS.				
Abilene	Simmons College Summer School and Normal.	J. D. Sandefer	June 6	Aug. 25
Alpine	Summer Normal	Edwin R. Bentley	...do...	July 14
Athens	...do...	A. W. Eddins	June 1	July 31
Austin	University of Texas Summer School and Normal.	W. S. Sutton	June 13	Sept. 1
Beaumont	Summer Normal	H. F. Triplett	June 4	July 13
Belton	Baylor College	E. G. Townsend	June 6	July 26
Bonham	Summer Normal	H. D. Fillers	June 1	July 15
Bowie	...do...			
Brenham	Blinn Summer Normal	G. W. Kopp	June 5	July 13
Do	Summer Normal (Negro)	A. R. Pickard	...do...	Do.
Brownsville	Summer Normal	P. D. Kennamer	June 4	July 9
Brownwood	...do...	Robert A. Law, Ph. D.	June 6	July 28
Cameron	...do...	J. O. Webb	June 12	Do.
Canyon	West Texas State Normal College, Summer Session and Normal.	R. B. Cousins	June 6	Aug. 10
Center Point	Summer Normal	E. R. Dabney		
Cisco	Britton Training School	H. B. Lofland	June 1	Aug. 1
Clarksville	...do...	Edw. Leach	June 4	July 26
Cleburne	...do...	W. S. Ownsby	June 1	July 15
College Station	Agricultural and Mechanical College of Texas.	J. Oscar Morgan, Ph.D.	June 15	Aug. 10
Comanche	Summer Normal	R. F. Holloway	June 1	July 20
Commerce	East Texas Normal College Summer School and Normal.	W. L. Mayo	June 5	Sept. 1
Conroe	Summer Normal (Negro)	M. W. Lawson	June 3	July 12
Cooper	Summer Normal	O. R. Bridges	June 6	July 31

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XVIII.—Summer School Directors—Continued.

Location.	Summer school.	Director or principal in 1916.	Probable date of session of 1917.	
			Opening.	Close.
TEXAS—continued.				
Corpus Christi	Summer Normal	Alvin Dille	June 1	Do.
Cuero	do	A. S. Bush	June 4	July 26
Dallas	Southern Methodist University	Paul W. Terry	June 13	Sept. 13
Do	Summer Normal (Negro)	N. W. Harllee, Ph. D.	June 15	July 30
Decatur	Decatur College	Brandon Trussell	June 30	July 15
Del Rio	Summer Normal (Negro)	F. W. Brown	June 10	July 20
Denton	College of Industrial Arts Summer School and Normal.	F. M. Bralley	June 4	Aug. 27
Do	Interdenominational School of Missions (College of Industrial Arts).	Mrs. L. P. Smith	June 10	June 20
Do	North Texas State Normal College Summer School and Normal.	W. H. Bruce	June 1	Aug. 1
Forth Worth	Summer Normal (negro)	T. H. Tabb	June 5	July 16
Do	Texas Christian University Summer School and Normal.	W. H. Batson	June 10	Aug. 31
Georgetown	Southwestern University Summer School and Normal.	C. A. Nichols	June 19	Sept. 1
Greenville	Summer Normal	J. D. Warren	June 1	July 31
Groesbeck	do	S. P. Conn	do	July 26
Haskell	do	R. J. Turrentine	[1]	
Houston	do	J. W. Lyle	June 1	July 10
Huntsville	Sam Houston State Normal Institute Summer School and Normal.	H. F. Estill	June 5	Aug. 5
Livingston	Summer Normal	E. T. Murphy		
Do	Summer Normal (Negro)	J. W. Thomas	June 18	July 26
Llano	Summer Normal	D. F. McCallum		
Lockhart	Summer Normal (Negro)	A. W. Moore	June 4	July 12
Longview	Summer Normal	L. W. Morton	June 5	July 27
Lovelady	do	J. N. Snell	do	Do.
McKinney	do	A. M. Blackman	June 10	July 30
Marshall	Summer Normal (Negro)	Henry B. Pemberton, M. A.	June 5	July 12
Meridian	Summer Normal	A. D. Rosch	June 10	July 30
Mineral Wells	do	E. O. McNew	June 5	July 28
Mount Pleasant	do	A. V. Peterson	June 6	Do.
Nacogdoches	do	O. J. Rushing		
Do	Summer Normal (Negro)	J. F. Alexander	June 1	July 31
Palacios	do	W. C. Gray	June 5	July 27
Palestine	do	J. H. Hicks	do	Do.
Do	Summer Normal (Negro)	C. F. Carr, M. A	June 15	July 30
Paris	Summer Normal	W. J. Morrow	June 6	July 28
Prairie View	Prairie View State Normal and Industrial College (Negro).	I. M. Terrell, M. A	June 5	July 27
San Angelo	Summer Normal	E. L. Nunnally	do	July 13
San Antonio	Our Lady of the Lake College	Mother M. Florence	July 1	Aug. 3
Do	Summer Normal	C. A. Arnold	June 15	July 31
San Marcos	Southwest Texas State Normal School Summer Session and Normal.	C. E. Evans	June 8	Aug. 8
Seguin	Summer Normal (Negro)	N. Dudley, jr	June 4	July 16
Sherman	Summer Normal	J. C. Pyle	June 13	July 26
Stephenville	John Tarleton College	Jas. F. Cox, M. A	June 4	July 28
Sweetwater	Summer Normal	J. H. Bright	May 25	July 15
Texarkana	do	George H. Carpenter	June 5	July 27
Do	Summer Normal (Negro)	H. W. McCowen	June 2	Aug. 1
Tyler	do	W. H. S. Seals, M. S	June 4	July 12
Uvalde	Summer Normal	O. V. Gardner	June 1	July 25
Victoria	do	Geo. W. Page, Ph. D	June 5	July 15
Waco	Baylor University Summer Quarter and Normal.	J. L. Kesler, LL. D B. B. Cobb	June 11	Aug. 31
Do	Summer Normal (Negro)	C. H. Dorsey	June 18	July 26
Waxahachie	Trinity University Summer School and Normal.	S. L. Hornbeak	June 12	[2] Aug. 12
Weatherford	Summer Normal	O. W. Hufstedler	June 6	July 28
Do	Summer Normal	Lee Clark		
Wills Point	do	H. P. Davis		
Woodville	do	P. I. Hunter	June 1	Aug. 3
UTAH.				
Logan	Agricultural College of Utah	Jas. H. Linford	June 4	July 14
Provo	Brigham Young University	G. H. Brimhall	do	Aug. 24
Salt Lake City	University of Utah	Milton Bennion	June 10	July 19
Do	Y. M. C. A. Summer School	J. H. Coombs	do	Do.

[1] No session in 1917.

[2] Summer Normal closes July 27.

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XVIII.—Summer School Directors—Continued.

Location.	Summer school.	Director or principal in 1916.	Probable date of session of 1917.	
			Opening.	Close.
VERMONT.				
Burlington	University of Vermont	J. F. Messenger, Ph. D.	July 9	Aug. 17
Castleton	State Normal School	C. A. Adams	July 1	July 28
East Charleston	Camp Winape (boys)	S. W. Berry	...do...	Aug. 31
Johnson	State Normal School	Walter H. Siple	...do....	July 24
Middlebury	Middlebury College	Edward Day Collins, Ph. D.	July 9	Aug. 17
Northfield	Norwich University (2 terms)[1]		July —	Aug. —
St. Albans Bay	Kamp Kill Kare	Ralph F. Perry	July 1	Sept. 10
VIRGINIA.				
Abingdon	State Summer Normal	F. B. Fitzpatrick	June 20	July 20
Blacksburg	Virginia Polytechnic Institute	C. E. Vawter	June 18	Aug. 4
Cambria	Christiansburg Summer School (Negro).	E. A. Long	June 19	July 21
Charlottesville	University of Virginia	Chas. G. Maphis	June 22	Aug. 5
Covington	State Summer Normal	C. H. Friend	June 20	July 19
Dublin	College of William and Mary	J. S. Wilson, Ph. D.	June 19	Aug. 16
East Radford	State Normal School for Women	J. P. McConnell	June 11	Aug. 25
Emory	Emory and Henry College	Fred Allison	June 14	Aug. 16
Farmville	State Normal School for Women	J. L. Jarman, LL. D.	June 12	July 21
Fredericksburg	....do	E. H. Russell		
Galax	State Summer Normal	Jas. A. Liveeay	June —	Aug. —
Hampton	Hampton Normal and Agricultural Institute (negro).	George P. Phenix	June 13	July 11
Harrisonburg	State Normal and Industrial School for Women.	W. R. Smithey	June 11	Aug. 30
Ivy Depot	Blue Ridge Camp (boys)	R. W. Wood, M. A.	July 3	Aug. 28
Lawrenceville	St. Paul Normal and Industrial School (Negro).	Rev. J. S. Russell	June 19	July 29
Luray	State Summer Normal	W. H. Cooke	...do....	Do.
Manassas	Manassas Industrial School for Colored Youth.	Fred D. Morton	June 20	July 25
Martinsville	State Summer Normal	T. H. Phelps, M. A.	June 18	July 20
Norfolk	....do	James Hurst	June 15	July 15
Petersburg	Virginia Normal and Industrial institute (Negro).	John Manuel Gandy	...do.....	July 27
Richmond	Richmond City Normal School	E. E. Smith		
Do	Virginia Union University (Negro)	G. R. Hovey, M. A.	June 18	Do.
WASHINGTON.				
Bellingham	State Normal School	G. W. Nash	May 29	July 27
Centralia	Centralia Summer Normal	E. J. Klemme, M. A.	June 10	Aug. 10
Cheney	State Normal School	Julian E. Buchanan	May 28	July 27
Ellensburg	....do	Wm. T. Stephens	June 6	July 29
Friday Harbor	Puget Sound Marine Station (University of Washington).	T. C. Frye	June 27	Aug. 6
North Yakima	Y. M. C. A. Summer School	W. G. McMorran	July 4	Aug. 12
Pullman	State College of Washington	A. A. Cleveland	June 20	July 30
Puyallup	Summer School of Agriculture (State College of Washington).	F. O. Kreager	June 18	July 27
Seattle	Northwest Summer Normal	Charles Fagan	...do.....	Do.
Do	University of Washington	Frederic E. Bolton	June 20	Aug. 1
Do	Y. M. C. A. Summer School	Charles A. Meta er	June 15	Do.
Spokane	Palmer Method Summer School	Charles E. Baten	June 20	July 16
Do	Summer High and Normal School	Henry M. Hart	June 11	July 27
Tacoma	College of Puget Sound	E. H. Todd, D. D.	June 18	July 28
Vancouver	Washington School for Blind	Sadie E. Hall	...do....	Aug. 7
WEST VIRGINIA.				
Athens	Concord State Normal School	L. B. Hill	June 13	Aug. 6
Bethany	Bethany College	T. E. Cramblet, LL. D.	June 21	Aug. 1
Buckhannon	West Virginia Wesleyan College	T. W. Haught M. M. Brooks B. F. Haught	June 11	Aug. 13
Elkins	Davis and Elkins College[1]			
Fairmont	State Normal School	O. G. Wilson	June 18	July 27
Glenville	....do	E. G. Rohrbough	June 11	Aug. 3
Huntington	Marshall College State Normal School.	O. I. Woodley	June 16	July 27

[1] No session in 1916.

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XVIII.—Summer School Directors—Continued.

Location.	Summer school.	Director or principal in 1916.	Probable date of session of 1917.	
			Opening.	Close.
WEST VIRGINIA—contd.				
Institute	West Virginia Collegiate Institute (Negro).[1]			
Morgantown	West Virginia University (2 terms).	Waitman Barbe, Litt. D.	June 18	Aug. 18
Ripley	Ripley Normal School	A. S. Lee / C. W. Lee	June 6	July 21
Salem	Salem College	Charles B. Clar., M. A., Pd. D.	June 12	Aug. 9
Shepherdstown	Shepherd College State Normal School.	Thos. C. Miller	do	Aug. 7
Smoot	Greenbrier Normal School	L. O. Haynes, M. Ped.	June 1	July 20
Terra Alta	Summer School for Teachers	F. W. Gandy	June 11	July 27
West Liberty	State Normal School	John C. Shaw	June 18	Do.
WISCONSIN.				
Berlin	Green Lake County Training School.	C. D. Lamberton	June 18	July 27
La Crosse	State Normal School	F. A. Cotton	do	Aug. 17
Madison	Indianola Camp and Tutorial School (boys).	F. G. Mueller	July 1	Aug. 26
Do	University of Wisconsin	S. H. Goodnight	June 25	Aug. 3
Menomonie	Stout Institute	G. F. Buxton	Aug. 1	Sept. 2
Milwaukee	Marquette University	Rev. Jos. A. Murphy	June 25	Aug. 3
Do	National German-American Teachers' Seminary.	Max Griebech	July 2	Do.
Do	State Normal School	Carroll G. Pearse	June 11	Aug. 31
Do	Y. M. C. A. Summer School	Peter Bickler	July 5	Aug. 16
New London	Waupaca County Training School.	C. B. Stanley	June 18	Aug. 10
Oshkosh	Algoma Camp (boys)	H. E. Polley	July 3	Aug. 28
Do	State Normal School	J. A. H. Keith	June 11	Aug. 10
Platteville	do	A. M. Royce	do	Do.
Reedsburg	Sauk County Training School	W. F. Smith		
River Falls	State Normal School	J. W. Crabtree	June 13	Aug. 13
Stevens Point	do	John F. Sims	June 18	Aug. 10
Superior	do	V. E. McCaskill, Ph. D	June 15	Aug. 15
Whitewater	State Normal School	C. R. Maxwell	June 11	Aug. 10
Williams Bay	Missionary Education Movement	Ralph E. Diffendorfer		
Do	Y. M. C. A. College	Frank H. Burt, LL. D.	June 28	July 27
WYOMING.				
Laramie	University of Wyoming	J. O. Creager	June 15	July 25

XIX.—Directors of Museums.[2]

Location.	Name of museum or of institution controlling it.	Director.
ALABAMA.		
Auburn	Alabama Polytechnic Institute	Charles C. Thach, president.
Birmingham	Birmingham School Museum	J. H. Phillips, superintendent.
Mobile	Y. M. C. A. Library and Museum	Leila Annspaugh, librarian.
Montgomery	Alabama Department of Archives and History	Thomas M. Owen, director.
Talladega	Talladega College	J. P. Metcalf, president.
University	Alabama Museum of Natural History	Eugene Allen Smith, director.
ALASKA.		
Juneau	Alaska Historical Library and Museum	Gov. J. F. A. Strong, official custodian.
Sitka	The Sheldon Jackson Museum	
ARIZONA.		
Tucson	University of Arizona Museum	Byron Cummings, curator.

[1] No session in 1916.
[2] Compiled by Paul M. Rea, secretary American Association of Museums, Charleston Museum, Charleston, S. C.

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XIX.—Directors of Museums—Continued.

Location.	Name of museum or of institution controlling it.	Director.
ARKANSAS.		
Conway	Hendrix College, George H. Burr Museum of Natural History.	M. J. McHenry, director.
Fayetteville	University of Arkansas	A. H. Purdue, State geologist.
CALIFORNIA.		
Avalon, Santa Catalina Island.	Tuna Club	
Berkeley	University of California, Department of Botany	W. A. Setchell, in charge.
Do	University of California, Department of Geology and Mineralogy.	Andrew C. Lawson, in charge.
Do	University of California, Museum of Paleontology.	J. C. Merriam, in charge.
Do	University of California, Museum of Vertebrate Zoology.	Joseph Grinnell, director.
Claremont	Pomona College	W. A. Hilton, in charge.
Los Angeles	Museum of History, Science, and Art	Frank S. Daggett, director.
Do	Chamber of Commerce Exhibit	Frank Wiggins, superintendent.
Do	Southern California Academy of Sciences	Holdridge O. Collins, secretary.
Do	The Southwest Museum	Hector Alliot, curator.
Do	University of Southern California	Albert B. Ulrey, curator.
Oakland	Municipal Art Gallery	Robert B. Harshe, director.
Do	Oakland Public Museum	Robert B. Harshe, curator.
Do	Piedmont Art Gallery	Richard L. Partington, curator.
Do	Sage Library	Anna L. Sawyer, librarian.
Pacific Grove	Pacific Grove Museum Association	
Palo Alto	Leland Stanford Junior Museum	H. C. Peterson, director.
Do	Leland Stanford Junior University	E. C. Starke, curator.
Pasadena	Throop College of Technology	W. H. Clapp, in charge.
Sacramento	Crocker Art Gallery	W. F. Jackson, curator.
San Francisco	California Academy of Sciences	Barton W. Evermann, director.
Do	California State Mining Bureau	Fletcher Hamilton, curator.
Do	Memorial Museum (Golden Gate Park)	George Haviland Barron, curator.
Do	San Francisco Institute of Art	Pedro T. Lemos, director.
Do	University of California, Anthropological Museum.	A. L. Kroeber, curator.
Santa Clara	Santa Clara University, Museum of Mineralogy and Paleontology.	Anthony Cichi, director.
COLORADO.		
Boulder	University of Colorado Museum	Junius Henderson, curator.
Colorado Springs	Colorado College Museum	Edward R. Warren, director.
Denver	Colorado Mineral Museum (State capitol)	T. R. Henahen, director.
Do	Colorado Museum of Natural History	J. D. Figgins, director.
Do	Colorado Scientific Society (Boston Block)	G. L. Cannon, curator.
Do	East Side High School Museum	Do.
Do	State Board of Horticulture	Mrs. Martha Shute, director.
Do	State Bureau of Mines	
Do	State Historical and Natural History Society	Jerome C. Smiley, curator.
Do	Colorado State Museum	Isaac A. Abbot, custodian.
Fort Collins	State Agricultural College	W. L. Burnet, curator.
Golden	Colorado School of Mines, Mineralogical Museum	H. B. Patton, director.
Greeley	State Teachers College of Colorado	
CONNECTICUT.		
Hartford	Connecticut Historical Society	A. C. Bates, secretary and librarian.
Do	Theological Seminary	Charles S. Thayer, curator.
Do	Trinity College, Boardman Hall of Natural History.	Frederic W. Carpenter, director.
Do	Wadsworth Atheneum and Morgan Memorial	Frank Butler Gay, director.
Litchfield	Litchfield Historical Society	Mrs. Emily N. Vanderpool, curator.
Meriden	Meriden Scientific Association	David Gibbs, president.
Middletown	Middlesex County Historical Society	A. R. Crittenden, curator.
Do	Wesleyan University	William North Rice, director.
New Britain	New Britain Institute	Anna G. Rockwell, librarian.
New Haven	New Haven Colony Historical Society	Frederick Bostwick, curator.
Do	Yale University, the Eaton Herbarium	Alexander W. Evans, curator.
Do	Yale University, Peabody Museum of Natural History.	Charles Schuchert, curator.
Do	Yale University, School of the Fine Arts	William S. Kendall, director.
Do	Yale University, Steinert Collection	

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XIX.—Directors of Museums—Continued.

Location.	Name of museum or of institution controlling it.	Director.
CONNECTICUT—Contd.		
New London	New London Historical Society	Ernest E. Rogers, president.
Norwich	Norwich Free Academy, Slater Memorial Museum.	Helen Marshall, curator.
Storrs	Connecticut Agricultural College	G. H. Lamson, jr., curator.
Waterbury	Mattatuck Historical Society	Rev. Joseph Anderson, president.
DELAWARE.		
Newark	Delaware College	
Wilmington	Natural History Society of Delaware	Linda Palmer-Jones, secretary.
DISTRICT OF COLUMBIA.		
Washington	Army Medical Museum	C. C. McCulloch, jr., curator.
Do	Corcoran Gallery of Art	C. Powell Minnigerode, director.
Do	Georgetown University, the Coleman Museum	Francis A. Tondorf, curator.
Do	George Washington University Medical School	F. F. Russell, director.
Do	Library of Congress, Division of Prints	Richard A. Rice, acting chief.
Do	National Gallery of Art, Smithsonian Institution.	William H. Holmes, curator.
Do	United States National Museum	Richard Rathbun, assistant secretary, in charge.
FLORIDA.		
DeLand	John B. Stetson University, Monroe Health Museum.	John F. Baerecke, director.
Gainesville	University of Florida, Florida State Museum	T. Van Hyning, director.
St. Augustine	St. Augustine Institute of Science and Historical Society.	Dewitt Nebb, president.
GEORGIA.		
Atlanta	State Museum	S. W. McCallie, curator.
Macon	Mercer University	
Oxford	Emory University	H. H. Stone, curator.
Savannah	Telfair Academy of Arts and Sciences	William Harden, custodian.
HAWAII.		
Honolulu	Berrice Pauahi Bishop Museum	William T. Brigham, director.
ILLINOIS.		
Bloomington	Illinois Wesleyan University, Powell Museum	
Do	McLean County Historical Society	Milo Custer, custodian.
Carlinville	Blackburn College, Taylor Museum	
Chicago	Art Institute of Chicago	Newton H. Carpenter, director pro tem.
Do	Chicago Academy of Sciences	W. W. Atwood, director.
Do	Chicago Historical Society	Caroline M. Mollvaine, librarian.
Do	Field Museum of Natural History	Frederick J. V. Skiff, director.
Do	University of Chicago, Educational Museum	Elliot R. Downing, director.
Do	University of Chicago, Haskell Oriental Museum.	James Henry Breasted, director.
Do	University of Chicago, Walker Museum	T. C. Chamberlin, director.
Decatur	James Millikin University, Biological Museum	
Elgin	Elgin Scientific Society	
Evanston	Evanston Historical Society	J. Seymour Currey, president.
Do	Northwestern University-Garrett Biblical Institute, Bennett Museum of Christian Archæology.	Charles M. Stuart, curator.
Do	Northwestern University College of Liberal Arts.	U. S. Grant, curator.
Do	Swedish Historical Society of America	
Galesburg	Knox College, Hurd Museum	B. H. Grave, curator.
Joliet	Joliet Township High School	Stanley Brown, superintendent.
Lake Forest	Lake Forest College Museum	W. C. Allee, curator.
Naperville	Northwestern College	L. M. Umbach, curator.
Rock Island	Augustana College Museum	Marcus Skarstedt.
Springfield	Illinois State Historical Library and Society	
Do	State Museum of Natural History	A. R. Crook, curator.
Sterling	Whiteside County Historical Society	W. W. Davis, secretary.
Urbana	University of Illinois, Museum of Natural History.	Frank Smith, curator.
Do	University of Illinois, Museum of Classical Archæology.	A. S. Pease, curator.
Do	University of Illinois, Museum of European Culture.	N. C. Brooks, curator

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XIX.—DIRECTORS OF MUSEUMS—Continued.

Location.	Name of museum or of institution controlling it.	Director.
INDIANA.		
Bloomington	Indiana University, Museum of Fine Arts	Alfred M. Brooks, curator.
Centerville	Wayne County Historical Society	Caleb King, curator.
Crawfordsville	Wabash College, Hovey Museum	Mason D. Thomas, curator.
Crown Point	Old Settlers and Historical Association of Lake County.	
Franklin	Franklin College	J. W. Adams, director.
Goshen	Elkhart County Historical Society	A. E. Weaver, custodian.
Hanover	Hanover College	
Indianapolis	Art Association of Indianapolis, John Herron Art Institute.	Harold Haven Brown, director.
Do	Indiana State Museum	W. S. Blatchley, curator.
Do	University of Indianapolis-Butler College	H. L. Bruner, director.
Marion	Grant County Historical Society, Octogenarian Museum.	R. L. Whitson, director.
Newcastle	Henry County Historical Society	
Noblesville	Hamilton County Historical Association	H. A. Maker, secretary-treasurer.
Notre Dame	Notre Dame University	
Richmond	Earlham College, The Joseph Moore Museum	Allen David Hole, curator.
South Bend	Northern Indiana Historical Society	George A. Baker, secretary.
Terre Haute	Emeline Fairbanks Memorial Library	Mrs. Sallie C. Hughes, librarian.
Upland	Taylor University, Walker Museum	
IOWA.		
Cedar Falls	Iowa State Teachers College	Melvin F. Arey, curator.
Cedar Rapids	Coe College Museum	B. H. Bailey, curator.
Do	Iowa Masonic Library and Museum	N. R. Parvin, librarian.
Davenport	Davenport Academy of Sciences	E. K. Putnam, acting director.
Des Moines	Historical Department of Iowa	Edgar R. Harlan, curator.
Dubuque	Carnegie-Stout Free Public Library	Almira R. Wilcox, librarian.
Do	Herrmann Museum of Natural History	Richard Herrmann, director.
Fayette	Upper Iowa University	Guy West Wilson, curator.
Grinnell	Parker Museum of Natural History	H. W. Norris, curator.
Independence	Free Public Library	S. W. Geiser, director.
Iowa City	Museum of Art and Archæology	C. H. Weller, director.
Do	Ranney Library and Museum	Jane E. Roberts.
Do	State University of Iowa, Zoological Museum	C. C. Nutting, curator.
Madrid	Madrid Historical Society	
Waverly	Wartburg Teachers Seminary	
KANSAS.		
Atchison	Midland College	D. W. Crouse, director.
Baldwin	Baker University	C. S. Parmenter, chief curator.
Emporia	College of Emporia	D. C. Schaffner, director.
Do	Kansas State Normal School	W. H. Keller, curator.
Lawrence	University of Kansas	Frank Strong, director.
Lindsborg	Bethany College	E. O. Deere, curator.
Manhattan	Kansas State Agricultural College, Natural History Museum.	Robert K. Nahoms, curator.
Topeka	Kansas State Historical Society	George W. Martin, secretary.
Do	Washburn College	Ira D. Cardiff, director.
Salina	Kansas Wesleyan University	A. W. Giles, director.
KENTUCKY.		
Bowling Green	Ogden College	
Frankfort	Kentucky State Historical Society	
Lexington	Kentucky Geological Survey	J. B. Hoenig, director.
Do	Transylvania College	Alfred Fairhurst, director.
Louisville	Louisville Free Public Library Museum	George T. Settle, librarian.
LOUISIANA.		
Baton Rouge	Louisiana State University and Agricultural and Mechanical College.	
New Orleans	Delgado Museum of Art	C. W. Boyle, curator.
Do	Louisiana Historical Association (Memorial Hall)	J. W. Gaines, custodian.
Do	Louisiana State Museum	Robert Glenk, director.
Do	Newcomb Art School	Ellsworth Woodward, director.
Do	Tulane University of Louisiana	George E. Beyer, curator.
MAINE.		
Augusta	Kennebec Historical Society	P. S. Mooney, secretary.
Do	Maine State Museum	Thomas A. James, curator.
Brunswick	Bowdoin College	Henry Johnson, curator.

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XIX.—Directors of Museums—Continued.

Location.	Name of museum or of institution controlling it.	Director.
MAINE—continued.		
Eliot	William Fogg Library	
Hinckley	Good Will Home Association	
Lewiston	Art Museum of Bates College	Marianna Woodhull, director.
North Bridgton	Bridgton Academy	
Orono	University of Maine, Museum of Natural History	Mintin A. Chrysler, curator.
Orrs Island	Orrs Island Library	Ellen M. Mountfort, librarian.
Paris	Hamlin Memorial Hall	
Portland	Maine Historical Society	Evelyn L. Gilmore, curator.
Do	Portland Society of Art, L. D. M. Sweat Memorial Art Museum.	John Calvin Stevens, managing director.
Do	Portland Society of Natural History	Arthur H. Norton, librarian.
Saco	York Institute	
Waterville	Colby College	
MARYLAND.		
Annapolis	Maryland Geological Survey	William Bullock Clark, director.
Baltimore	Baltimore Museum of Art	Henry H. Wiegand, secretary.
Do	Goucher College	
Do	Johns Hopkins University, Museum of Oriental and Classical Archæology.	David M. Robinson, director.
Do	Maryland Academy of Sciences	Percy M. Reese, director.
Do	Maryland Institute for the Promotion of the Mechanic Arts.	C. Y. Turner, director.
Do	Peabody Institute	L. H. Diehman, executive secretary.
Do	Walters Gallery	Henry Walters, owner.
Ellicott City	Rock Hill College	Brother Fabrician, registrar.
MASSACHUSETTS.		
Amherst	Amherst College Museum	B. K. Emerson, director.
Do	Massachusetts Agricultural College	C. E. Gordon, curator.
Andover	Abbot Academy	
Do	John-Esther Art Gallery	Jane B. Carpenter, custodian.
Do	Phillips Academy	Charles Peabody, director.
Beverly	Beverly Historical Society	
Boston	Boston Society of Natural History	Charles W. Johnson, curator.
Do	Bostonian Society (Old State House)	Charles F. Read, treasurer.
Do	Children's Museum of Boston	Della I. Griffin, director.
Do	Harvard Medical School, Warren Anatomical Museum.	William F. Whitney, director.
Do	Massachusetts Historical Society	
Do	Museum of Fine Arts	Arthur Fairbanks, director.
Do	Old South Association (The Old South Meeting House).	Richard W. Hale, treasurer, 16 Central Street.
Cambridge	Harvard University, Botanical Museum	George L. Goodale, honorary curator.
Do	Harvard University, Collection of Classical Antiquities.	George Henry Chase, curator.
Do	Harvard University, School of Architecture	H. Langford Warren, director.
Do	Harvard University, Geological Museum	R. W. Sayles, curator.
Do	Harvard University, Germanic Museum	Kuno Francke, curator.
Do	Harvard University, Gray Herbarium	B. L. Robinson, curator.
Do	Harvard University, Semitic Museum	David G. Lyon, curator.
Do	Harvard University, Mineralogical Museum	John F. Wolff, curator.
Do	Harvard University, Museum of Comparative Zoology.	Samuel Henshaw, director.
Do	Harvard University, Peabody Museum of Archæology and Ethnology.	C. C. Willoughby, director.
Do	Harvard University, Social Museum	James Ford, director.
Do	Harvard University, Fogg Art Museum	E. W. Forbes, director.
Charlestown	United States Navy Yard	Arthur W. Stone, curator.
Clinton	Clinton Historical Society	W. E. Parkhurst, secretary.
Danvers	Danvers Historical Society	Henry N. Comey, curator.
Deerfield	Pocumtuck Valley Memorial Association	George Sheldon, curator.
Fitchburg	Fitchburg Historical Society	Theresa N. Garfield, librarian.
Do	Wallace Library and Art Gallery	George E. Nutting, librarian.
Gloucester	Cape Ann Scientific and Literary Association	
Greenfield	Historical Society of Greenfield	Mrs. Ida Hall, curator.
Haverhill	Haverhill Historical Society	Leonard W. Smith, curator.
Ipswich	Ipswich Historical Society	
Lancaster	Thayer Museum	John E. Thayer, director.
Leominster	Leominster Public Library	Florence E. Wheeler, curator.
Lexington	Lexington Historical Society	Mrs. Ellen B. Lane, custodian.

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XIX.—Directors of Museums—Continued.

Location.	Name of museum or of institution controlling it.	Director.
MASSACHUSETTS—contd.		
Lynn	Lynn Historical Society	C. H. Woodbury, president.
Marblehead	Marblehead Historical Society	Hannah Tutt, curator.
Marlborough	Marlborough Society of Natural History	Joel W. Giles, curator.
Medford	Medford Historical Society	Agnes W. Lincoln, curator.
Nantucket	Nantucket Historical Association	Susan E. Brock, curator.
New Bedford	Old Dartmouth Historical Society	William A. Wing, secretary.
Newburyport	Historical Society of Old Newbury	
Northampton	Forbes Library	Lalia May Damon, acting librarian.
Do	Hillyer Art Gallery, Smith College	Alfred V. Churchill, director.
Do	Smith College	
Peabody	Peabody Historical Society	
Pittsfield	Berkshire Athenaeum and Museum	Harlan H. Ballard, curator.
Plymouth	Pilgrim Society	H. N. P. Hubbard, curator.
Rehoboth	Rehoboth Antiquarian Society	
Salem	Essex Institute	George Francis Dow, curator.
Do	Peabody Academy of Science, Peabody Museum	Edward S. Morse, director.
Sharon	Sharon Historical Society	George Kempton, custodian.
Somerville	Somerville Historical Society	
South Natick	Historical, Natural History, and Library Society	Ida H. Morse, curator.
Springfield	Springfield Art Museum	George Walter Vincent Smith, curator.
Do	Springfield Museum of Natural History	Mrs. Grace P. Johnson, curator.
Do	Connecticut Valley Historical Society	William C. Stone, curator.
Taunton	Bristol County Academy of Sciences	Frederic H. Carpenter, curator.
Topsfield	Topsfield Historical Society	George Francis Dow, curator.
Tufts College	Tufts College, Barnum Museum	H. V. Neal, curator.
Wellesley	Wellesley College, Farnsworth Museum of Art	Alice Van Vechten Brown, director.
Do	Wellesley College	Albert P. Morse, curator.
Westborough	Westborough Historical Society	Amelia Harrington, curator.
West Newbury	West Newbury Natural History Club	Helen S. Merrill, curator.
Williamstown	Williams College Geological Museum	H. F. Cleland.
Woburn	Woburn Public Library	George Hill Evans, librarian.
Woods Hole	U. S. Bureau of Fisheries	J. E. B. Pope, director.
Worcester	Clark University Educational Museum	W. H. Burnham.
Do	Worcester Art Museum	Philip J. Gentner, director.
Do	Worcester Natural History Museum	Mrs. Ella L. Horr, custodian.
Do	Worcester Society of Antiquity	Ellery Bicknell Crane, librarian.
MICHIGAN.		
Alma	Alma College, Francis A. Hood Museum	H. M. MacCurdy, director.
Ann Arbor	University of Michigan	Alexander G. Ruthven, director.
Detroit	Detroit Museum of Art	Clyde H. Burroughs, secretary.
East Lansing	Michigan Agricultural College	Walter B. Barrows, director.
Grand Rapids	Kent Scientific Museum	Herbert E. Sargent, director.
Houghton	Michigan College of Mines, Mineralogical Museum	A. E. Seaman, director.
Lansing	Michigan Historical Commission	George Newman Fuller, custodian.
Muskegon	Hackley Art Gallery	Raymond Wyer, director.
MINNESOTA.		
Collegeville	St. John's University	Severin Gertken, curator.
Minneapolis	Minnesota Academy of Sciences	William H. Dunwoody, president.
Do	Minneapolis Society of Fine Arts	Joseph Breck, director.
Do	Walker Private Gallery (807 Hennepin Ave.)	T. B. Walker, director.
Do	University of Minnesota	Christopher W. Hall, curator.
Northfield	Carleton College	
St. Paul	Hamline University	Henry L. Osborn, director.
Do	Minnesota Historical Society	Solon J. Buck, superintendent.
Do	St. Paul Institute Museum and Art Gallery	Arthur Sweeney, director.
St. Peter	Gustavus Adolphus College	J. A. Edquist, curator.
Winona	State Normal School	John M. Holzinger, curator.
MISSISSIPPI.		
Agricultural College	Mississippi Agricultural and Mechanical College	William N. Logan, director.
Jackson	Millsaps College	J. M. Sullivan, director.
Do	State Department of Archives and History	Dunbar Rowland, director.
MISSOURI.		
Columbia	State Historical Society of Missouri	Floyd C. Shoemaker, secretary.
Do	University of Missouri, Museum of Art and Archeology.	John Pickard, curator.

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XIX.—Directors of Museums—Continued.

Location.	Name of museum or of institution controlling it.	Director.
MISSOURI—continued.		
Doe Run	Graves Private Museum	
Glasgow	Pritchett College	
Kansas City	Daniel B. Dyer Museum (Public Library Building).	Mrs. Ophelia Jacobs, curator.
Do	Nelson Gallery of Art (Public Library Building).	Mrs. Helen R. Parsons, curator.
Rolla	Bureau of Geology and Mines	H. A. Buehler, director.
Do	Missouri School of Mines, Geological Museum	G. H. Cox, director.
Springfield	Drury College, Edward M. Shepard Museum	Charles H. Spurgeon, curator.
St. Louis	City Art Museum	R. A. Holland, director.
Do	Educational Museum of the St. Louis Public Schools.	C. G. Rathmann, director.
Do	Missouri Historical Society Museum	H. M. Whelpley, director.
Do	Washington University	
MONTANA.		
Helena	Montana State Library	W. Y. Pemberton, librarian.
NEBRASKA.		
Crete	Doane College Museum	Carl O. Carlson, curator.
Hastings	Hasting's College Museum	W. J. Kent.
Lincoln	Nebraska State Historical Society	Mrs. M. P. Knotts, secretary.
Do	Nebraska State Museum	Erwin H. Barbour, curator.
Omaha	Creighton University	William F. Rigge, director.
Do	Omaha Public Library and Museum	Edith Tobitt.
NEW HAMPSHIRE.		
Concord	New Hampshire Historical Society	Otis G. Hammond, superintendent.
Hanover	Dartmouth College, Butterfield Museum	C. H. Hitchcock, director.
Hopkinton	New Hampshire Antiquarian Society	Sarah U. Kimball, curator.
Keene	Keene High School	James F. Smith.
Manchester	Currier Gallery of Art	Arthur M. Heard.
Do	Manchester Historic Association	Fred. W. Lamb, curator.
NEW JERSEY.		
Flemington	Hunterdon County Historical Society	
Hackensack	Bergen County Historical Society (Johnson Public Library).	Frances A. Westervelt, chairman.
New Brunswick	Rutgers College, Geological Museum	J. A. Volney Lewis, curator.
Newark	New Jersey Historical Society (16 W. Park St.).	A. Van Doren Honeyman.
Do	The Newark Museum Association, The Newark Museum.	John Cotton Dana, director.
Princeton	Princeton University, Museum of Geology and Archæology.	William Libbey, director.
Do	Princeton University, Museum of Historic Art	Allan Marquand, director.
Salem	Salem County Historical Society	O. W. Acton, curator.
Trenton	New Jersey State Museum	
Vineland	Vineland Historical and Antiquarian Society	Frank D. Andrews, secretary.
Woodbury	Historical Society of Gloucester County	
NEW MEXICO.		
Santa Fe	Historical Society of New Mexico	H. Woodruff, curator.
NEW YORK.		
Albany	Albany Institute	I. Townsend Lansing, president.
Do	New York State Museum	John M. Clarke, director.
Alfred	Alfred University, Allen Steinheim and Museum of Natural History.	James D. Bennehoff, curator.
Amsterdam	Montgomery County Historical Society	W. Max Reid, curator.
Binghamton	Broome County Historical Society, Art Gallery and Museum.	William F. Seward, custodian.
Brooklyn	The Brooklyn Museum	William Henry Fox, director.
Do	Polytechnic Institute of Brooklyn	
Do	Pratt Institute, School of Fine and Applied Art	Walter Scott Perry, director.
Buffalo	Buffalo Fine Arts Academy	Cornelia B. Sage, director.
Do	Buffalo Historical Society	Frank H. Severance, secretary.
Do	Buffalo Society of Natural Sciences	Henry R. Howland, superintendent.

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XIX.—Directors of Museums—Continued.

Location.	Name of museum or of institution controlling it.	Director.
NEW YORK—continued.		
Buffalo	Canisius College	Henry Wolff, curator.
Canandaigua	Ontario County Historical Society	Charles F. Milliken, president.
Canton	St. Lawrence University	
Clinton	Hamilton College	Nelson C. Dale, director.
Cortland	F. W. Higgins Museum	F. E. Whitmore, curator.
Elmira	Arnot Art Gallery	Mrs. Jeannette M. Diven, director.
Geneseo	Livingston County Historical Society	
Geneva	Hobart College	E. H. Eaton, director.
Glen Iris	Genesee Valley Museum	Caroline Bishop, curator.
Granville	Pember Library and Museum	F. T. Pember, curator.
Hamilton	Colgate University	
Ithaca	Cornell University, College of Civil Engineering	E. E. Haskell, director.
Do	Cornell University, Geological Museum	Henry S. Williams, director.
Do	Cornell University Museum of Classical Archæology.	E. P. Andrews, curator.
Do	Cornell University, Museum of Invertebrate Zoology.	John Henry Comstock, director.
Do	Cornell University, Museum of Vertebrate Zoology.	
Do	Cornell University, Veterinary College	Veranus A. Moore, director.
Johnstown	Johnstown Historical Society	Fred. Plamondon, curator.
Lake George	New York State Historical Society	
New Brighton	Staten Island Association of Arts and Sciences, Public Museum.	Arthur Hollick, director.
New York City	Academy Mount St. Vincent	
Do	American Museum of Natural History	F. A. Lucas, director.
Do	American Numismatic Society (156th St., west of Broadway).	Bauman L. Belden, director.
Do	Bronx Society of Arts and Sciences, Lorillard Mansion (Bronx Park).	
Do	Children's Museum (Bedford Park)	Anna B. Gallup, curator.
Do	Columbia University, Egleston Mineralogical Museum.	Alfred J. Moses, director.
Do	Colonial Dames Society, Van Cortlandt Manor (Van Cortlandt Park).	
Do	Cooper Union, Museum for the Arts of Decoration.	Mrs. Eleanor G. Hewitt, director.
Do	Hispanic Society of America (156th St., west of Broadway).	E. L. Stevenson, secretary.
Do	The Metropolitan Museum of Art	Edward Robinson, director.
Do	Museum of French Art	McDougall Hawkes, president.
Do	New York Botanical Garden (Bronx Park)	N. L. Britton, director in chief.
Do	The New York Historical Society (170 Central Park West).	
Do	New York Public Library Art Galleries and Exhibition Rooms.	Edwin H. Anderson, director.
Do	New York University	
Do	Washington Headquarters Association (Jumel Mansion).	
Niagara	Niagara University	
Poughkeepsie	Vassar College, Natural History Museum	A. L. Treadwell, curator.
Rochester	Bevier Memorial, Mechanics' Institute	F. von der Lancken, superintendent.
Do	Memorial Art Gallery	George L. Herdle, director.
Do	Municipal Museum	Edward D. Putnam, curator.
Do	Rochester Historical Society	Robert T. Webster, curator.
Do	University of Rochester, Geological Museum	H. L. Fairchild.
Do	University of Rochester, Zoological Museum	Chas. Wright Dodge, curator.
Do	Ward's Natural Science Establishment	Frank A. Ward, president.
Schenectady	Schnectady County Historical Society	
Do	Union College, Natural History Museum	James H. Stoller, curator.
Schoharie	Schoharie County Historical Society	Henry Cady, curator.
Skaneateles	Skaneateles Library Association, Barrow Art Gallery.	Lydia A. Cobane.
Southampton, Long Island.	Southampton Art Museum	Samuel L. Parrish, director.
Syracuse	Onondaga Historical Association (311 Montgomery St.).	Mrs. L. L. Goodrich, custodian.
Do	Syracuse Museum of Fine Arts (Syracuse Public Library Building).	Fernando A. Carter, director.
Do	Syracuse University	Charles W. Hargitt, director.
Troy	Rensselaer Polytechnic Institute	John M. Clarke, director.
Utica	Oneida Historical Society	
Waterloo	Waterloo Library and Historical Society	Lulu M. Clark.
West Point	U. S. Military Academy, Ordnance Museum	W. H. Tschappat, in charge.
Yonkers	Phillipse Manor House	

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XIX.—Directors of Museums—Continued.

Location.	Name of museum or of institution controlling it.	Director.
NORTH CAROLINA.		
Concord	Scotia Seminary	
Davidson	Davidson College Museum	
Durham	Trinity College	James J. Wolfe, director.
Do	Trinity Colige Historical Society	
Raleigh	North Carolina Hall of History	Fred A. Olds, director.
Do	North Carolina State Museum	H. H. Brimley, curator.
Tryon	Green Museum	
Do	Polk County Museum	Mrs. George E. Morton.
Wake Forest	Wake Forest College	
NORTH DAKOTA.		
Agricultural College	Agricultural College	J. H. Shepperd, vice director.
Bismarck	State Historical Society Museum	Melvin R. Gilmore, curator.
University	University of North Dakota Museum	E. J. Babcock, director.
OHIO.		
Berea	Baldwin-Wallace College, Herman Herzer Museum.	W. N. Speckmann, curator.
Cincinnati	Cincinnati Museum	J. H. Gest, director.
Do	Cincinnati Society of Natural History (312 Broadway).	Lester D. Collier, director.
Do	Cuvier Press Club	Charles Dury, custodian.
Do	Lloyd Library and Museum	W. H. Aiken, curator.
Do	Ohio Mechanics Institute, Industrial Museum	John F. Shearer, president.
Do	University of Cincinnati	J. Ernest Carman, assistant curator.
Cleveland	Case School of Applied Science	F. M. Comstock, curator.
Do	Cleveland Museum of Art	Frederic Allen Whiting, director.
Do	Western Reserve Historical Society	W. H. Cathcart, director.
Do	Western Reserve University	F. H. Herrick, director.
Columbus	Columbus Art Association, Columbus Gallery of Fine Arts (51 N. Monroe Ave.).	Mrs. William McClellan Ritter, president.
Do	Ohio State Archæological and Historical Society	William C. Mills, curator.
Do	Ohio State University	
Dayton	Dayton Public Library and Museum	L. Simonton, custodian.
Delaware	Ohio Wesleyan University	Lewis G. Westgate, curator.
Fremont	Sandusky County Pioneer and Historical Association.	
Greenville	Museum of Carnegie Library	Charles L. Katzenberger, curator.
Hiram	Hiram College	George H. Colton, curator.
Norwalk	Firelands Historical Society	C. H. Gallup, director.
Oberlin	Oberlin College, Geological Museum	F. O. Grover.
Do	Oberlin College, Olney Art Collection	Mrs. A. A. Wright, custodian.
Springfield	Clark County Historical Society	Elizabeth Josephine Smart, secretary.
Tiffin	Heidelberg University	M. E. Kleckner, curator.
Toledo	Toledo Museum of Art	George W. Stevens, director.
Yellow Springs	Antioch College	
Youngstown	Mahoning Institute of Art	J. G. Butler, jr., president.
OKLAHOMA.		
Bacone	Bacone College	
Oklahoma City	Oklahoma Historical Society	W. P. Campbell, custodian.
OREGON.		
Corvallis	Oregon Agricultural College	A. B. Cordley, director.
Eugene	University of Oregon, Condon Geological Museum.	Warren D. Smith, curator.
Portland	Oregon Academy of Sciences	
Do	Oregon Historical Society	George H. Himes, curator.
Do	Portland Art Association, Museum of Art	Anna Belle Crocker, curator.
Do	Portland Free Museum	C. F. Weigand, curator.
PENNSYLVANIA.		
Allentown	Lehigh County Historical Society	Charles R. Roberts, secretary.
Do	Muhlenberg College	J. A. W. Haas.
Bradford	McKean County Historical Society	Mrs. Ada Cable.
Bryn Mawr	Bryn Mawr College	C. A. Reeds, director.
Doylestown	Bucks County Historical Society	H. C. Mercer, curator.
Easton	Lafayette College	John H. McCrackin.
Erie	Erie Public Museum	Thomas L. Austin, curator.
Germantown	Site and Relic Society of Germantown	Horace M. Lippincott.
Gettysburg	Pennsylvania College	F. S. Breidenbaugh, curator.
Harrisburg	Historical Society of Dauphin County	Mrs. L. A. Perry.

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XIX.—Directors of Museums—Continued.

Location.	Name of museum or of institution controlling it.	Director.
PENNSYLVANIA—contd.		
Harrisburg	Pennsylvania State Museum	Thomas Lynch Montgomery, director.
Haverford	Haverford College	Henry S. Pratt, director.
Lebanon	Lebanon County Historical Society	Charles D. Weinick.
Meadville	Allegheny College	Chester A. Darling, curator.
Meyerstown	Albright College	J. P. Sotber, curator.
New Brighton	Merrick Free Art Gallery, Museum and Library.	Frank A. Merrick, director.
Norristown	Historical Society of Montgomery County	Frances M. Fox, curator.
Do	Regar Museum of Natural History	H. Severn Regar, curator.
Philadelphia	Academy of Natural Sciences	Samuel G. Dixon, president.
Do	Drexel Institute Museum	Hollis Godfrey.
Do	Independence Hall and National Museum	Wilfred Jordan, curator.
Do	Numismatic and Antiquarian Society of Philadelphia, The Numismatic Collection.	F. D. Langenheim, curator.
Do	Pennsylvania Academy of the Fine Arts	John F. Lewis, president.
Do	Pennsylvania Museum (Memorial Hall, Fairmount Park).	Edwin At Lee Barber, director.
Do	The Philadelphia Commercial Museum (34th and Spruce Sts.).	W. P. Wilson, director.
Do	Presbyterian Historical Society, Museum and Gallery (Witherspoon Building).	Joseph B. Turner, general secretary.
Do	United States Mint, Numismatic Collection	T. L. Comparette, curator.
Do	University of Pennsylvania, The University Museum.	G. B. Gordon, director.
Do	University of Pennsylvania, Wistar Institute of Anatomy and Biology.	Milton J. Greenman, director.
Do	W. P. Wilstach Collection (Memorial Hall, Fairmount Park).	E. A. Shunk, custodian.
Do	Wagner Free Institute of Science	John G. Rothermel, superintendent.
Do	Zoological Society of Philadelphia, Pathological Museum.	Herbert Fox, curator.
Pittsburgh	Carnegie Institute, Department of Fine Arts	John W. Beatty, director.
Do	Carnegie Museum, Department of Carnegie Institute.	W. J. Holland, director.
Do	University of Pittsburgh	S. P. McCormick.
Pottsville	Schuylkill County Historical Society	H. E. Greger, secretary.
Reading	Historical Society of Berks County	Andrew Shaaber, librarian.
Do	Reading Public Museum	Levi W. Mengel, director.
Scranton	Everhart Museum of Natural History, Science, and Art.	R. N. Davis, curator.
South Bethlehem	Lehigh University, Geological Museum	Benj. L. Miller.
State College	Pennsylvania State College	
Swarthmore	Swarthmore College	Spencer Trotter, director.
Uniontown	Fayette County Historical Society	James Hannen, custodian.
Valley Forge	Valley Forge Museum of American History	W. Herbert Burk, director.
Washington	Washington and Jefferson College	
Do	Washington County Historical Society	George B. Montgomery, secretary.
West Chester	Chester County Historical Society	Gilbert Cope, secretary.
Do	West Chester State Normal School	
Wilkes-Barre	Wyoming Historical and Geological Society	Horace Edwin Hayden, librarian.
Williamsport	The James V. Brown Library	O. R. Howard Thomson, librarian.
York	York County Historical Society	Robert C. Bair, secretary.
RHODE ISLAND.		
Barrington	Barrington Historic-Antiquarian Society	Emma S. Bradford, librarian.
Newport	Newport Historical Society	Edith M. Tilley, librarian.
Providence	Annmary Brown Memorial	Frank M. Cushman, custodian.
Do	Brown University:	
	Archeology	Dr. John Shapley, curator.
	Herbarium	Dr. Harlan H. York, curator.
Do	Park Museum (Roger Williams Park)	Harold L. Madison, curator.
Do	Rhode Island Historical Society	Howard M. Chapin, librarian.
Do	Rhode Island School of Design	L. Earle Rowe, director.
Warren	Warren Antiquarian Society	Rev. Joseph Hutcheson, president.
SOUTH CAROLINA.		
Charleston	Carolina Art Association	James Simons, president.
Do	Charleston Museum	Paul M. Rea, director.
Do	Daughters of the Confederacy, Charleston Chapter.	Martha B. Washington, president.
Clemson College	Clemson College, Natural History Museum	F. H. H. Calhoun, curator.
Clinton	Thornwell Museum	Wm. P. Jacobs, curator.
Columbia	University of South Carolina	A. C. Moore.

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XIX.—Directors of Museums—Continued.

Location.	Name of museum or of institution controlling it.	Director.
SOUTH CAROLINA—con.		
Greenville	Furman University Museum	G. A. Buist, curator.
Newberry	Newberry College, Sifley Museum	
Spartanburg	Wofford College	D. A. Du Pre, director.
SOUTH DAKOTA.		
Pierre	South Dakota State Historical Museum	Doane Robinson, director
Rapid City	South Dakota School of Mines	Cleophas C. O'Harra, director.
Vermilion	University of South Dakota, State Geological Museum.	Freeman Ward, curator.
TENNESSEE.		
Clarksville	Southwestern Presbyterian University	
Knoxville	University of Tennessee, Geological Museum	C. H. Gordon, director.
Lebanon	Cumberland University	Kate A. Hinds, director.
Maryville	Maryville College	
Memphis	Cossitt Library Museum Association, Cossitt Library.	Lida Speed, custodian.
Nashville	Tennessee Historical Society	
Do	Vanderbilt University	L. C. Glenn, director.
Do	Walden University, Walden Museum	Mrs. H. H. Oneal, director
TEXAS.		
Austin	University of Texas, Museum of Economic Geology.	J. A. Udden, director.
Dallas	Dallas Art Association	J. B. Martin, custodian.
Fort Worth	Fort Worth Museum of Art (Carnegie Library)	Mrs. Charles Scheuber, secretary.
Houston	Houston Museum	C. L. Brock, director.
Do	Rice Institute	
Do	Houston Art League (City Hall)	Mrs. George Heyer, president.
San Antonio	Scientific Society of San Antonio	Edward Heusinger, secretary.
Waco	Baylor University	John Kern Strecker, jr., curator.
UTAH.		
Salt Lake City	Deseret Museum	James E. Talmage, director.
Do	Utah Art Institute	Edwin Evans, president.
Do	University of Utah	Orson Howard, curator.
VERMONT.		
Burlington	University of Vermont	G. H. Perkins, curator.
Middlebury	Middlebury College, Museum of Natural History	Avery E. Lambert, director.
Montpelier	Vermont Historical Society	Dorman B. E. Kent, librarian.
Do	Vermont State Museum	George H. Perkins, curator.
St. Johnsbury	The Fairbanks Museum of Natural Science	Alice W. Wilcox, director.
Westfield	Hitchcock Memorial Museum	E. S. Miller, curator.
VIRGINIA.		
Blacksburg	Virginia Polytechnic Institute	Ellison A. Smyth, jr., director.
Charlottesville	University of Virginia, Lewis Brooks Museum	Thomas L. Watson, director.
Emory	Emory and Henry College	
Lexington	Washington and Lee University	H. D. Campbell, director.
Richmond	Confederate Museum (White House of the Confederacy).	Susie B. Harrison, house regent.
Do	Department of Agriculture and Immigration	
Do	R. E. Lee Camp No. 1 Confederate Veterans	A. S. Baird, acting commandant.
Do	Richmond College	C. H. Ryland, curator.
Do	The Valentine Museum	E. V. Valentine, president.
WASHINGTON.		
Pullman	State College of Washington	W. T. Shaw, curator.
Seattle	University of Washington, State Museum	F. S. Hall, curator.
Do	Washington State Art Association, Museum of Arts and Sciences (423 University St.).	J. L. Charbneau, curator.
Tacoma	Ferry Museum	
Do	Tacoma Academy of Science	
WISCONSIN.		
Appleton	Lawrence College Museum	Rufus Mather Bagg, curator.
Ashland	Ashland public schools	
Baraboo	Sauk County Historical Society	H. E. Cole, president.

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XIX.—Directors of Museums—Continued.

Location.	Name of museum or of institution controlling it.	Director.
WISCONSIN—continued.		
Beaver Dam	W. E. Snyder Museum	W. E. Snyder, owner.
Beloit	Beloit College, Logan Museum	Ira M. Buell, curator.
Darlington	Lafayette County Historical Society	P. H. Conley, president.
La Crosse	La Crosse Normal School	Albert H. Sanford, custodian.
Madison	G. A. R. Memorial Hall	Hosea Rood, custodian.
Do	State Historical Museum of Wisconsin	Charles E. Brown, chief.
Do	University of Wisconsin	
Milton	Milton College	A. R. Crandall, director.
Milwaukee	Milwaukee Downer College, Greene Memorial Museum.	Margaret I. Campbell, curator.
Do	Layton Art Gallery	George Raab, curator.
Do	Public Museum of the City of Milwaukee	Henry L. Ward, director.
Platteville	State Mining School	R. E. Davis, director.
Portage	Portage Public Library	
Racine	Racine Public Library	
Ripon	Ripon College	Frank M. Erickson, dean.
St. Francis	St. Francis Seminary, Salzmann Museum	William Metzdorf, director.
Waupun	Waupun Public Library	
WYOMING.		
Laramie	University of Wyoming	S. H. Knight, curator.

XX.—Librarians of Public and Society Libraries.

Location.	Name of library.	Librarian.	Number bound volumes.
ALABAMA.			
Birmingham	Public Library	Carl H. Milam	47,000
Gadsden	....do	Lena Martin	6,000
Mobile	Mobile Library	Addie C. Moses	40,000
Montgomery	State and Supreme Court Library.	J. M. Riggs	42,071
Selma	Carnegie Library	Bettie Keith	6,521
Talladega	Public Library	Frances R. Archer	8,370
ARIZONA.			
Bisbee	Copper Queen Library	Carrie G. Vail	7,976
Phoenix	Carnegie Public Library	Addie P. Ingalls	17,471
Do	State Law and Legislative Reference Library.	Con P. Cronin	45,000
Prescott	Public Library	Mrs. Anna M. Henry	1,600
Tucson	Carnegie Free Library	Mrs. J. H. Batte	11,000
ARKANSAS.			
Fort Smith	Carnegie City Library	Mary A. Osgood	7,429
Little Rock	Public Library	Dorothy D. Lyon	22,763
CALIFORNIA.			
Alameda	Free Library	Marcella H. Krauth	16,470
Alhambra	Public Library	Mrs. Mary P. Smith	15,675
Bakersfield	Beale Memorial Free Public Library.	Sarah E. Bedinger	20,570
Do	Kern County Free Library	Mrs. Julia G. Babcock	18,680
Berkeley	Public Library	Carleton B. Joeckel	60,548
Chico	....do	Laura A. Sawyers	6,415
Colton	....do	Mrs. Anna E. Spragins	7,240
Colusa	Free Public Library	Bell Crane	4,964
Corona	Public Library	Helen L. Coffin	7,377
Coronado	....do	Anna Allsebrook	5,839
Covina	....do	Mrs. Henrietta M. Faulder	7,417
El Centro	Imperial County Free Library	Mrs. Thomas Beeman	9,821
Do	Public Library	Agnes Folger Ferris	6,766
Eureka	Free Library	Henry A. Kendal	8,205
Do	Humboldt County Free Library	Ida M. Reagan	1,477
Fairfield	Solano County Free Library	Clara B. Dills	3,140
Fresno	County Free Library	Sarah E. McCardle	32,690
Do	Free Public Library	....do	23,106
Grass Valley	Public Library	Mrs. O. M. Parsons	3,627
Hanford	Free Public Library	Katherine Post Ferris	

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XX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
CALIFORNIA—continued.			
Hanford	Kings County Free Library	Katherine Post Ferris	9,571
Hayward	Free Library	Elizabeth Creelman	4,200
Hemet	Free Public Library	Mrs. A. Aylesworth	2,596
Independence	Inyo County Free Library	Helen E. Vogleson, acting	2,418
Long Beach	Public Library	Zaidee Brown	40,532
Los Angeles	Los Angeles County Free Library.	Celia Gleason	109,355
Do	Public Library	Everett R. Perry	276,079
Los Gatos	....do	Mrs. M. C. Proctor	6,968
Madera	Madera County Free Library	Maude L. Mast	9,256
Martinez	Contra Costa County Free Library.	Mrs. Alice G. Whitbeck	12,888
Marysville	City Library	Mary E. Suber	9,000
Merced	Merced County Free Library	Winifred H. Bigley	22,787
Modesto	Stanislaus County Free Library.	Cornelia D. Provines	11,650
Monrovia	Public Library	Ellyn T. Hill	7,049
Napa	Goodman Library	C. B. Seeley	13,324
National City	Public Library	Winnifred Fifield	6,231
Nevada City	Free Public Library	Mrs. M. Fuller	5,689
Oakland	Free Library	Charles S. Greene	134,675
Do	Free Library, Alameda County Department.	Mary Barmby	31,048
Oceanside	Public Library	H. D. Brodie	6,385
Ontario	....do	K. A. Monroe	7,365
Orange	Free Public Library	Mrs. Anna C. Field	6,731
Oroville	Butte County Free Library	Essae M. Culver	11,239
Oxnard	Public Library	Ethel Carroll	7,539
Pacific Grove	....do	Elizabeth S. Jones	6,910
Palo Alto	Palo Alto Library	Frances D. Patterson	11,342
Pasadena	Public Library	Nellie M. Russ	55,000
Petaluma	....do	Sara Frances Cassiday	10,996
Pomona	....do	Sarah M. Jacobus	30,392
Red Bluff	Herbert Kraft Free Library	Alice Gardiner	4,571
Redlands	A. K. Smiley Public Library	Artena M. Chapin	29,388
Richmond	Public Library	Della M. Wilsey	13,758
Riverside	Public Library and County Free Library.	Joseph F. Daniels	68,200
Sacramento	City Library	Lauren W. Ripley	115,000
Do	Sacramento County Free Library.	....do	47,102
Do	State Library	J. L. Gillis	204,544
Salinas	Monterey County Free Library	Anne Hadden	8,500
San Bernardino	Free Public Library	May Coddington	18,217
Do	San Bernardino County Free Library.	Caroline S. Waters	12,629
San Diego	Free Public Library	Althea H. Warren	60,000
Do	San Diego County Free Library.	Jennie Herrman	18,640
San Francisco	Public Library	Robert Rea	173,798
San Jose	Free Public Library	Nell M. McGlinley	27,365
Do	Santa Clara County Free Library.	Stella Huntington	9,871
San Luis Obispo	Free Public Library	Mrs. E. L. Kellogg	13,472
San Mateo	Public Library	Inez M. Crawford	8,887
San Rafael	....do	May Cooper	10,000
Santa Ana	Free Public Library	Jeannette E. McFadden	16,470
Santa Barbara	....do	Mrs. Frances B. Linn	40,447
Santa Cruz	Public Library	Minerva H. Waterman	25,000
Santa Monica	....do	Ellie A. Mosse	21,220
Santa Rosa	Free Public Library	Margaret A. Barnett	22,522
South Pasadena	Public Library	Mrs. Nellie E. Keith	11,150
Stockton	Free Public Library and San Joaquin County Free Library.	W. F. Clowdsley	70,049
Tulare	Free Public Library	Mrs. Rosa D. Reardon	7,200
Vallejo	Public Library	L. G. Doyle	12,343
Ventura	....do	Florence Vandever	6,039
Visalia	Free Library	Mrs. M. J. McEwen	5,792
Do	Tulare County Free Library	Mrs. Bessie H. Twaddle	25,000
Watsonville	Carnegie Library	Belle M. Jenkins	7,500
Whittier	Public Library	Emily M. Seegmiller	11,896
Willows	Glenn County Free Library	Laura Robson	5,227
Woodland	Yolo County Free Library	Eleanor Hitt	22,616
Yreka	Siskiyou County Free Library	Bessie B. Silverthorn	
COLORADO.			
Boulder	Public Library	M. Jean Macdonald	8,000
Canon City	....do	Ruth Lewis	6,916
Colorado Springs	....do	Lucy W. Baker	28,843
Denver	....do	Chalmers Hadley	177,370

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XX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
COLORADO—continued.			
Denver	State Library	Mary C. C. Bradford	15,000
Durango	Public Library	Sadie K. Sullivan	8,220
Fort Collins	....do	Elfreda Stebbins	11,570
Grand Junction	Carnegie Public Library	Camille Wallace	7,382
Greeley	Public Library	Elma A. Wilson	12,000
La Junta	Young Folks Library	Ethel Helm	18,772
Leadville	Public Library	Louise S. Adams	5,993
Longmont	....do	Rebecca Day	5,100
Ouray	Walsh Public Library	Mrs. Minnie M. Nowlan	8,412
Pueblo	McClelland Public Library	Mary L. Strang	30,000
Trinidad	Carnegie Public Library	Andrew J. Floyd	6,234
CONNECTICUT.			
Ansonia	Ansonia Library	Ruby E. Steele	22,540
Branford	Blackstone Memorial Library	Charles N. Baxter	34,815
Bridgeport	Public Library	Calhoun Latham	69,227
Bristol	....do	Charles L. Wooding	33,000
Canaan	Douglas Library	Mrs. Nellie A. Preston	6,201
Cheshire	Public Library	Mary E. Baldwin	6,441
Colchester	Cragin Memorial Library	Mary A. Leal	5,776
Columbia	Saxton B. Little Free Library	Lillian W. Rice	6,537
Cornwall	Library Association	Mary J. Whitney	5,513
Danbury	Danbury Library	Ella R. MacDowell	22,778
Danielson	Free Public Library	Henry M. Danielson	9,839
Darien	Free Library	Emily Gall	6,406
Derby	Derby Neck Free Library	Mrs. Elizabeth J. Shaw	13,000
Do	Public Library	Minnie B. Cotter	20,549
Durham Center	Durham Public Library	Gertrude L. Hart	5,774
East Hartford	Public Library	Jessie W. Hayden	9,800
Ellington	Hall Memorial Library	Ida M. Bancroft	6,046
Fairfield	Memorial Library	Emma F. Wakeman	10,697
Farmington	Village Library	Mrs. T. H. Root	7,880
Greenwich	Greenwich Library	Ella M. Brush	9,218
Groton	Bill Memorial Library	Abbey M. Clarke	6,747
Hartford	Case Memorial Library	Charles Snow Thayer	107,000
Do	Public Library	Caroline M. Hewins	120,000
Do	State Library	George S. Godard	165,000
Litchfield	Wolcott and Litchfield Circulating Library.	Katharine Baldwin	13,239
Lyme	Phœbe Griffin Noyes Library	Bessie Connolly	7,478
Madison	E. C. Scranton Memorial Library	Evelyn Meriwether	9,100
Meriden	Curtis Memorial Library	Corinne A. Deshon	23,851
Middlefield	Levi E. Coe Public Library	Lily M. Terrill	3,799
Middletown	Russell Library	Laura F. Philbrook	23,000
Milford	Taylor Library	W. S. Chase	16,000
Moodus	East Haddam Public Library	Blanche R. Boyd	7,796
Mystic	Mystic and Noank Library	Genevra E. Ricker	7,054
Naugatuck	Howard Whittemore Memorial Library.	E. M. Goodyear	13,435
New Britain	New Britain Institute	Anna G. Rockwell	54,000
New Canaan	Public Library	Stella Waters	9,831
New Haven	Free Public Library	Willis K. Stetson	125,000
New London	Public Library	Frederick W. Edgerton	36,600
New Milford	....do	Elizabeth H. Noble	10,777
Newtown	Beach Memorial Library	Abbie L. Peck	5,000
Norfolk	Norfolk Library	Philemon W. Johnson	18,900
Northfield	Gilbert Library	Mrs. E. A. Hopkins	5,177
North Granby	Frederick H. Cossitt Library	Helen M. Shaw	8,084
Norwalk	Public Library	Dotha Stone Pinneo	11,918
Norwich	Otis Library	Imogene A. Cash	40,000
Do	Peck Library	Helen Marshall	16,500
Pomfret Center	Pomfret Library	M. L. Harvey	7,000
Portland	Buck Library	Frances P. Robinson	6,215
Putnam	Free Public Library	Emma J. Kinney	6,810
Ridgefield	Ridgefield Library	Jennie Smith	9,750
Rockville	Public Library	Edith M. Peck	12,059
Salisbury	Scoville Memorial Library	Charlotte B. Norton	10,500
Seymour	Public Library	Edyth Mae Lovering	7,322
Sharon	Hotchkiss Library	Flora A. Ryan	7,278
Shelton	Plumb Memorial Library	Jessamine Ward	15,257
Simsbury	Free Library	Carrie L. MacRoy	12,262
South Manchester	....do	Louise L. Bartlett	13,635
South Norwalk	Public Library	Agnes L. Blanchard	12,656
Southington	....do	Mrs. Charles H. Bissell	6,800
Southport	Pequot Library	Josephine S. Heydrick	41,000
Stafford Springs	Stafford Public Library	Anna Heald	6,300
Stamford	Ferguson Library	Alice M. Colt	28,521

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XX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
CONNECTICUT—contd.			
Stonington	Free Library	Mrs. K. Hahn	7,000
Stratford	Library Association	Frances B. Russell	16,310
Suffield	Kent Memorial Library	Madeline H. Spencer	19,000
Thomaston	Public Library	Martha E. Potter	6,082
Thompsonville	Enfield Public Library	Lillian V. Bailey	6,954
Torrington	Torrington Library	Louise T. Mason	15,000
Uncasville	Raymond Library	Lucy P. Scholfield	5,811
Wallingford	Public Library	Emma Lewis	13,091
Washington	Gunn Memorial Library	Fanny P. Brown	5,308
Waterbury	Silas Bronson Library	Helen Sperry	100,074
Watertown	Library Association	Jennie M. Smith	9,336
Westport	Public Library	Edith E. Vail	7,200
Wethersfield	....do	Mrs. R. D. Vosburgh	6,800
Willimantic	Dunham Hall Library	Mrs. Hattie B. Gates	6,168
Do	Public Library	Bell B. Riggleman	9,150
Winsted	Beardsley Library	Helena B. Alford	14,634
DELAWARE.			
Dover	State Library	Thomas W. Wilson	50,000
New Castle	New Castle Library	Ruth E. Stewart	6,000
Odessa	Corbit Library	May C. Enos	7,400
Wilmington	Wilmington Institute Free Library.	Arthur L. Bailey	83,908
DISTRICT OF COLUMBIA.			
Washington	Army War College	Maj. J. R. M. Taylor	97,000
Do	Library of Congress	Herbert Putnam	2,363,873
Do	Pan American Union (Columbus Memorial Library).	Charles E. Babcock	37,000
Do	Peabody Library	Rea Nelson Gilbert	9,000
Do	Public Library	George F. Bowerman	185,136
Do	U. S. Department of Agriculture.	Claribel R. Barnett	135,000
Do	Weather Bureau	C. Fitzhugh Talman	31,000
	U. S. Department of Commerce.	Anne G. Cross	75,000
Do	Bureau of Fisheries	Rose M. MacDonald	30,626
Do	Bureau of Standards	A. Fanti	14,500
Do	Coast and Geodetic Survey	R. M. Brown	23,000
	U. S. Department of the Interior:		
Do	Bureau of Education	John D. Wolcott	150,000
Do	Bureau of Mines	Mrs. Edith Spofford	10,000
Do	Geological Survey	Julia L. V. McCord	118,000
Do	Patent Office	H. H. Brogan	75,000
Do	U. S. Department of Justice	George Kearney	47,000
Do	U. S. Department of Labor (Bureau of Labor Statistics).	M. Alice Matthews	31,436
Do	U. S. Department of the Navy.	Charles W. Stewart	45,942
Do	Naval Observatory	William D. Horigan	28,786
Do	U. S. Department of State, Bureau of Rolls and Library.	John A. Tonner	74,000
Do	U. S. Department of the Treasury.	Emma M. V. Triepel	12,210
Do	Bureau of Public Health Service.	D. S. Masterson	8,000
Do	Office of Solicitor of the Treasury.	James S. Maddux	7,000
Do	U. S. Department of War (Surgeon General's Office).	Lieut. Col. C. C. McCulloch, jr.	226,128
Do	U. S. Interstate Commerce Commission.	Leroy S. Boyd	14,000
Do	U. S. Public Documents Library.	Sarah Ambler	193,533
Do	U. S. Senate Library	Edward C. Goodwin	225,000
Do	U. S. Smithsonian Institution	Paul Brockett	285,000
Do	Bureau of American Ethnology.	Ella Leary	20,260
Do	U. S. Soldiers' Home Library	Mary V. Schick	13,000
FLORIDA.			
Jacksonville	Public Library	Lloyd W. Josselyn	37,650
St. Augustine	Free Public Library	Elizabeth Monk	9,000
GEORGIA.			
Atlanta	Carnegie Library	Tommie Dora Barker	73,711
Do	State Library	Mrs. Maud B. Cobb	65,000
Columbus	Public Library	Mrs. Nina Holstead	10,043
Macon	Price Free Library	Minnie F. Rice	6,890
Marietta	Clarke Library Association	Mabel C. Cortelyou	7,000

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XX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
GEORGIA—continued.			
Montezuma	Carnegie Library	Mrs. Nettie Wilson	3,941
Newman	....do	Katherine Powel	8,135
Savannah	Public Library	William Harden	54,000
Thomasville	....do	Mary H. Hansell	4,330
Washington	Mary Willis Library	Caroline Turner	8,000
IDAHO.			
Boise	Carnegie Public Library		16,700
Do	State Law Library	Mrs. Stella B. Balderstone	26,000
Lewiston	Carnegie Library	Margaret G. Guyer	8,735
Pocatello	Public Library	Martha L. Christian	4,160
ILLINOIS.			
Alton	Jennie D. Hayner Library Association.	Harriet C. Dolbee	15,583
Aurora	Public Library	James Shaw	32,734
Batavia	....do	Cassie W. Stephens	11,420
Belleville	....do	A. M. Wolleson	21,533
Belvidere	Ida Public Library	Elizabeth Ballard	12,507
Bloomington	Withers Public Library	Nellie E. Parham	27,000
Blue Island	Public Library	Ida Ludlow	8,000
Cairo	....do	Mrs. L. L. Powell	21,000
Cambridge	Township Public Library	Jessie M. Poppy	7,300
Canton	Parlin Public Library	Mrs. Josephine H. Resor	10,170
Carthage	Free Public Library	Mrs. Elizabeth E. Pennock	6,667
Centralia	Public Library	Celia M. Miles	6,890
Champaign	....do	Ethel G. Kratz	21,268
Charleston	Free Public Library	Margaret A. Gramesly	7,740
Chicago	John Crerar Library	Clement W. Andrews	374,000
Do	Municipal Reference Library	Frederick Rex	15,957
Do	Newberry Library	W. N. C. Carlton	358,028
Do	Public Library	Henry E. Legler	711,450
Chicago Heights	Free Public Library	Estella A. Cossaart	8,023
Clinton	Vespasian Warner Public Library.	Lillian Kent	13,153
Danville	Public Library	Josephine E. Durham	33,121
Decatur	Free Public Library	Mrs. Alice G. Evans	37,108
DeKalb	Haish Library	Josephine M. Jandell	20,000
Dixon	Public Library	Mary F. Wynn	16,100
Earlville	....do	Fanny M. Burlingame	6,210
East St. Louis	....do	J. Lyon Woodruff	30,000
Edwardsville	Free Public Library	Sarah Coventry	3,700
Elgin	Gail Borden Public Library	Katherine L. Abbott	47,000
Evanston	Public Library	Mary B. Lindsay	53,553
Freeport	....do	Harriet Lane	34,844
Galena	....do	Ava E. Hurst	9,203
Galesburg	Free Public Library	Anna F. Hoover	47,361
Geneseo	Public Library	Ella L. Sawyer	12,000
Geneva	....do	Kate Burton	7,600
Harvard	Delos F. Diggins Library	Vera K. Gher	5,500
Harvey	Public Library	Sarah Daniels	3,900
Highland Park	....do	Annie L. McKenzie	10,000
Hinsdale	....do	Mrs. Ella F. Ruth	6,378
Hoopeston	....do	Zeliaette Troy	9,400
Jacksonville	....do	Lydia M. Barrette	20,303
Joliet	....do	Mrs. Rena M. Barickman	40,000
Kankakee	....do	Rose M. Mather	10,885
Knoxville	....do	Mrs. Charity A. Penn	2,500
La Grange	Free Public Library	Louise E. DeWitt	9,265
Lake Forest	Public Library	Frances E. Kemp, acting	10,500
La Salle	....do	Kathryne G. Coleman	10,000
Lincoln	....do	Ida M. Webster	10,000
Litchfield	Free Public Library	Mary D. Wallace	4,808
Macomb	....do	Mahala Phelps	11,974
Marion	Marion Carnegie Library	Marie Williams	1,286
Mattoon	Public Library	Blanche Gray	8,893
Maywood	....do	Grace M. Rogers	6,931
Mendota	Graves Public Library	Sadie Wilcox	8,600
Moline	Public Library	Minnie Kohler	23,400
Monticello	Allerton Public Library	Lena Bragg	6,478
Morrison	Odell Public Library	Anna E. Corcoran	5,640
Naperville	Nichols Library	Mary E. Egermann	5,450
Oak Park	Public Library	Mabel A. Thain	29,408
Olney	Olney Carnegie Library	Cora Belle Morris	12,005
Onarga	Free Public Library	Charlotte M. Amerman	5,300
Ottawa	Reddicks Public Library	Vera J. Snook	16,600
Pana	Public Library	Nellie C. Russell	6,978

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XX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
ILLINOIS—continued.			
Paris	Carnegie Public Library	Ruth I. Link	10,000
Paxton	Carnegie Library	Emma Meharry	7,551
Pekin	Public Library	Anna M. Smith	11,745
Peoria	....do	S. P. Prowse	146,646
Pittsfield	....do	Lulu Quinby	5,950
Plano	Little Rock Township Public Library.	Mrs. Maude E. Henning	7,790
Polo	Buffalo Township Public Library.	E. Frances Barber	6,000
Pontiac	Public Library	Nell Thornton	9,395
Princeton	Matson Public Library	Agnes M. Robinson	8,964
Quincy	Free Public Library	Margaret Ringler	42,869
Rockford	Public Library	Jane P. Hubbell	65,010
Rockton	Talcott Free Library	Mary C. Forward	5,523
Shelbyville	Free Public Library	Grace L. Westervelt	8,281
Spring Valley	Public Library	Mrs. Mary Rees	3,598
Springfield	Lincoln Library	Henry C. Remann	65,883
Do	State Library	Mrs. Eva May Fowler	62,340
Sterling	Public Library	Sadie F. Murphy	11,168
Streator	....do	Mrs. Mary L. Wright	15,385
Sycamore	....do	Julia S. Osborne	6,743
Taylorville	....do	Aline E. Emery	7,989
Urbana	Free Public Library	Ida B. Hanes	22,345
Warren	....do	Mrs. R. D. Spofford	5,649
Warsaw	....do	Mrs. Clara M. Mills	7,768
Watseka	Public Library	Lillian Barnes	5,500
Waukegan	....do	Laura J. Perrin	8,565
Wheaton	Adams Memorial Library	Clara F. Lefever	6,100
Wilmette	Free Public Library	Anna E. Law	6,800
Winnetka	Public Library	Mary E. Hewes	9,192
Woodstock	....do	Lura M. Wandrack	5,237
INDIANA.			
Anderson	Carnegie Library	Mabel A. Wayne	23,000
Aurora	Public Library	Irma M. Hauck	6,000
Bedford	....do	Georgia A. Fridley	11,250
Bluffton	....do	Nannie W. Jayne	7,573
Brazil	....do	Agnes McCrea	8,000
Carthage	Henry Henley Public Library	Mattie Clark	5,686
Columbia City	Peoples Free Library	Jessie H. Faust	12,000
Columbus	Public Library	A. J. Dipboye	12,277
Connersville	....do	Isabel Ball	7,540
Crawfordsville	....do	Susan K. Beck	12,784
Decatur	....do	Annette L. Moses	7,200
Elkhart	Carnegie Library	Ella F. Corwin	25,230
Elwood	Public Library	Verna M. Evans	12,560
Evansville	....do	Ethel F. McCollough	24,480
Do	Willard Library	Otilda Goslee	45,010
Fort Wayne	Public Library	Margaret M. Colerick	56,130
Frankfort	....do	Olive Brumbaugh	7,000
Franklin	....do	Leila B. Wilcox	4,719
Gary	....do	Louis J. Bailey	54,432
Goshen	....do	Elizabeth Rockwell	12,541
Greencastle	Carnegie Public Library	Belle S. Hanna	11,118
Greenfield	Public Library	Catherine G. Poulson	7,000
Greensburg	Carnegie Public Library	Frank P. Montfort	7,521
Hammond	Public Library	Mrs. Jeanie L. Sawyer	16,215
Hartford City	Free Public Library	Minta B. Fordney	9,106
Huntington	City Free Library	Winifred F. Tiger	26,000
Indianapolis	Public Library	Eliza G. Browning	206,342
Do	State Library	Demarchus C. Brown	71,765
Jeffersonville	Township Public Library	Bertha F. Poindexter	10,172
Kokomo	Carnegie Public Library	Idabelle Ford	10,715
Lafayette	Public Library	Mrs. Virginia Stein	28,340
La Porte	....do	Mrs. Jennie B. Jessup	21,232
Lebanon	....do	Mrs. Cora O. Bynum	10,100
Linton	....do	Mrs. Margaret McGauhy	4,395
Logansport	....do	Alice D. Stevens	19,422
Madison	....do	Nellie G. Harper	8,500
Marion	....do	Edith C. Baldwin	29,280
Michigan City	....do	Amalia Aicher	13,565
Mishawaka	....do	Carrie S. Crossby	6,500
Montpelier	....do	Mrs. Marian P. Watts	6,138
Mount Vernon	Alexandrian Free Public Library.	Hazel E. Armstrong	7,428
Muncie	Public Library	Margaret E. Streeter	40,000

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XX.—LIBRARIANS OF PUBLIC AND SOCIETY LIBRARIES—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
INDIANA—continued.			
New Albany	Public Library	Annette L. Clark	20,791
Peru	do	Gertrude H. Thiebaud	13,759
Portland	Carnegie Library	Mary E. Boltin	6,500
Princeton	Public Library	Julia A. Mason	12,707
Rensselaer	do	Antoinette Price	8,895
Rochester	Carnegie Library	Grace Stingley	5,964
Seymour	Public Library	Gertrude E. Aiken	5,700
Shelbyville	Carnegie Public Library	Ida A. Lewis	13,208
South Bend	Public Library	Virginia M. Tutt	35,000
Terre Haute	Emeline Fairbanks Memorial Library.	Mrs. Sallie C. Hughes	48,500
Tipton	Public Library	Mrs. Sam Matthews	7,302
Union City	do	Jessie L. Kerr	6,000
Valparaiso	do	Bertha Joel	7,394
Vincennes	City Free Library	Ella Davidson	11,922
Wabash	Carnegie Library	Effie Roberts	8,584
Washington	Carnegie Public Library	Mary E. Waller	10,000
Whiting	Public Library	Louise Randall	11,000
IOWA.			
Albia	Public Library	Mrs. Laura M. Duncan	5,100
Algona	Free Public Library	Gertrude I. Sheridan	7,122
Ames	Public Library	Kittie B. Freed	9,110
Anamosa	do	Elsie Jeanette Remley	5,075
Atlantic	Carnegie Free Public Library	Mary N. Adams	6,260
Boone	Ericson Library	Bessie Moffatt	15,707
Burlington	Free Public Library	Miriam B. Wharton	39,278
Cedar Falls	Public Library	Eunice H. Overman	8,000
Cedar Rapids	Iowa Masonic Library	Newton R. Parvin	31,000
Do	Public Library	E. Joanna Hagey	32,252
Centerville	Drake Free Public Library	Elizabeth Gault	7,171
Charles City	Public Library	Belle Caldwell	10,000
Cherokee	do	Helen M. Taylor	8,168
Clarinda	do	Elva Greef	7,736
Clinton	Free Public Library	Anna M. Tarr	21,715
Council Bluffs	do	Ione Armstrong	27,000
Davenport	Public Library	Grace D. Rose	44,000
Des Moines	Free Public Library	Charles E. Rush	80,998
Do	State Library	Johnson Brigham	120,387
Dubuque	Carnegie Stout Public Library	Almira R. Wilcox	47,777
Eldora	Public Library	Mrs. M. E. Wheelock	6,300
Estherville	Free Public Library	Sade M. Davidson	6,714
Fairfield	do	H. M. Dysart	25,850
Fort Dodge	do	Isabella C. Hopper	16,334
Fort Madison	Cattermole Memorial Library	Rebecca Hesser	8,000
Grinnell	Stewart Library	Nina Brecount	14,324
Hampton	Public Library	Mary E. Kingsbury	6,500
Independence	Free Public Library	Minnie Markham	6,625
Indianola	Public Library	Helen S. Le Fevre	9,000
Iowa City	do	Helen McRaith	15,580
Jefferson	do	Mrs. Ida B. Head	5,000
Keokuk	do	Nannie P. Fulton	23,942
Le Mars	do	Mae Smith	6,500
Manchester	Carnegie Library	Margaret Lindsay	7,300
Maquoketa	Free Public Library	Ida M. Simpson	9,784
Marion	do	Katherine M. Peirce	5,368
Marshalltown	Public Library	Anna Maude Kimberly	16,683
Mason City	do	Mrs. Bertha S. Baird	14,670
Mount Pleasant	Free Public Library	Mrs. Florence McKibbin	14,097
Muscatine	P. M. Musser Public Library	Ellen G. Stocker	14,763
Nevada	Public Library	Kate E. Thompson	6,000
Newton	Free Public Library	Mrs. Charlotte Bryant	10,000
Onawa	Public Library	Helen E. Allen	10,000
Osage	Sage Public Library	Rena Gray	5,985
Oskaloosa	Free Public Library	Eleanor M. Fawcett	11,911
Ottumwa	Public Library	May B. Ditch	35,121
Pella	Carnegie-Viersen Library	Leona Renvers	6,000
Perry	Free Public Library	Flora B. Bailey	6,145
Shenandoah	Public Library	M. Berdena Jay	7,543
Sioux City	do	Jeannette M. Drake	47,188
Tipton	Free Public Library	Helen R. Schriver	6,181
Vinton	do	Elizabeth F. Williams	8,000
Washington	Jane A. Chilcote Library	Eva G. Denny	10,288
Waterloo	Public Library	Maria C. Brace	24,000
Webster City	Kendall Young Library	E. D. Burgess	11,120
Winterset	Public Library	Mary Cassedy	8,864

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XX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
KANSAS.			
Abilene	Free Public Library	Lida Romig	6,283
Anthony	Free Public Library and Reading Room.	Lora Orr	3,173
Arkansas City	Public Library	Mrs. A. B. Ranney	5,580
Atchison	....do	Mrs. Leontine Scofield	10,852
Burlington	Carnegie Free Public Library	Mrs. Della Hall	5,900
Chanute	Free Public Library	Ada Allen	9,516
Coffeyville	Public Library	Margaret E. Brunner	8,000
Concordia	Free Public Library	Anna M. Shafer	5,856
El Dorado	Free Library	Cora Adelaide Mooney	3,384
Emporia	....do	Mildred Berrier	14,326
Fort Scott	Public Library	M. L. Barlow	7,132
Great Bend	....do	Bina Deighton	5,300
Iliawatha	Morrill Free Public Library	Hattie M. Zimmerman	14,000
Hutchinson	Public Library	Ida Day	8,000
Independence	....do	Anna M. Gemmell	9,356
Junction City	George Smith Public Library	Garnette Heaton	9,956
Kansas City	Public Library	Sara J. Greenman	30,100
Lawrence	Free Public Library	Mrs. Nellie G. Beatty	13,854
Leavenworth	....do	T. R. Temple	25,000
Manhattan	Carnegie Free Public Library	Mary Cornelia Lee	8,000
Newton	Free Library	Lulu M. Knight	9,530
Oswego	Free Public Library	Mrs. C. M. Wiley	4,000
Ottawa	Carnegie Free Library	Alice C. Graham	9,000
Paola	Free Public Library	Katharine A. Hobson	11,800
Parsons	Public Library	Mrs. Belle Curry	9,134
Peabody	....do	Emma F. Christ	12,400
Pittsburg	....do	Mrs. Theresa G. Randolph	14,456
Salina	Free Public Library	Mrs. Delia E. Brown	15,286
Topeka	....do	Caroline Medlicott	32,000
Do	State Library	James L. King	100,000
Washington	Public Library	Stella H. Johnson	2,500
Wichita	City Library	Julius Lucht	11,000
KENTUCKY.			
Covington	Public Library	Anne M. Spears	21,067
Frankfort	State Library	Frank K. Kavanaugh	114,112
Henderson	Public Library	Susan S. Towles	6,533
Lexington	....do	Florence Dillard	30,133
Louisville	Free Public Library	George T. Settle	191,631
Maysville	Public Library	Mary E. Richeson	8,400
Newport	....do	Henrietta J. Litzendorff	13,270
Owensboro	Carnegie Free Public Library	Irene E. Blair	7,464
Paducah	Carnegie Public Library	Jessica Hopkins	18,180
Paris	Public Library	Imogen Redmon	7,000
Somerset	....do	Mrs. Wynona McDaniels	7,850
LOUISIANA.			
New Orleans	Howard Memorial Library	William Beer	47,465
Do	Public Library	Henry M. Gill	144,638
Do	State Law Library	Alice M. Magee	40,000
MAINE.			
Alfred	Parsons Memorial Library	M. C. Emerson	7,298
Andover	Public Library	Mabel E. French	6,902
Auburn	....do	Annie Prescott	19,829
Augusta	Lithgow Library and Reading Room.	Julia M. Clapp	12,000
Do	State Library	Henry E. Dunnack	110,000
Bangor	Public Library	Charles A. Flagg	47,846
Bar Harbor	Jesup Memorial Library	I. M. Suminsbey	11,500
Bath	Patten Free Library	Margaret Rogers Foote	20,725
Belfast	Free Library	Annie Leonora Barr	17,462
Biddeford	Public Library	Emma Hatch	17,338
Brunswick	....do	Mary G. Gilman	15,000
Calais	Free Library and Reading Room	Alice L. Delaney	11,500
Camden	Public Library	Mrs. Emma J. Hosmer	6,843
Castine	Witherle Memorial Library	Katherine Davenport	5,000
Cherryfield	Public Library	Mrs. May A. Wakefield	15,000
Corinna	Stewart Free Library	Mrs. Della M. Winchester	12,351
Cumberland Mills	Cumberland Mills Library	Lucy S. Anderson	7,200
Dexter	Town Library	Lizzie S. Springall	12,539
Dover	Thompson Free Library	Mary E. Averill	11,135
Eastport	Peavey Library	Virginia P. Kemp	11,560
Eliot	William Fogg Library	M. Louise Foye	7,800
Ellsworth	City Library	Mary A. Hodgkins	6,500
Fairfield	Lawrence Library	Mrs. Anna R. Reed	8,200

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XX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
MAINE—continued.			
Farmington	Cutler Memorial Library	Mrs. Flora A. Brooks	14,000
Freeport	B. H. Bartol Library	Annette H. Aldrich	4,565
Gardiner	Public Library	Mrs. B. C. Berry	12,000
Gorham	Baxter Memorial Library	Victoria A. Magnusson	9,000
Guilford	Memorial Library	Ernestine Hale	5,115
Hallowell	Hubbard Free Library	Annie F. Page	11,000
Houlton	Cary Memorial Library	Anna Barnes	11,000
Kennebunk	Public Library	Mrs. C. R. Bragden	7,600
Kittery	Rice Public Library	Eleanor L. Lovell	7,690
Lewiston	Public Library	Angie E. Tracy	28,348
National Soldiers' Home	National Soldiers' Home Library	Frank L. Dow	12,227
New Gloucester	Public Library	Helen A. Moseley	6,000
Norway	....do	Mrs. Addie D. Steward	8,800
Old Town	....do	Amy S. Wood	6,467
Orr's Island	Orr's Island Library	Ellen C. Mountfort	5,450
Paris	Hamlin Memorial Hall	Mrs. Fred W. Shaw	2,600
Pittsfield	Public Library	Minnie Porter	6,300
Portland	....do	Alice C. Furbish	74,000
Presque Isle	....do	Lucinda B. Marston	53,000
Rangeley	....do	Mrs. L. J. Kempton	5,625
Richmond	Library Association	J. W. Randlette	7,000
Rockland	Public Library	Nancy I. Burbank	14,199
Saco	Dyer Library Association	John Haley	17,000
Sanford	Public Library	Bentley Aveyard	5,000
Skowhegan	....do	Mrs. Fanny J. Cabot	14,000
South Berwick	Fogg Memorial Library		8,131
South Poland	Poland Spring Library	Frank Carlos Griffith	6,700
Thomaston	Public Library	Lizzie S. Levensaler	7,300
Vinal Haven	....do	Miss L. A. Jones	5,000
Waterville	Free Public Library	Jennie M. Smith	12,000
Westbrook	Memorial Library	Lillian Quimby	15,000
Yarmouthville	Merrill Memorial Library	Ellen S. Mitchell	8,100
MARYLAND.			
Annapolis	State Library	Nettie V. Mace	95,000
Baltimore	City Library	Wilbur F. Coyle	20,000
Do	Enoch Pratt Free Library	Bernard C. Steiner	341,258
Hagerstown	Washington County Free Library	Mary L. Titcomb	30,000
Reisterstown	Tillard Memorial Free Library		4,000
MASSACHUSETTS.			
Abington	Public Library	Helen M. Hunt	11,338
Acton	Memorial Library	Arthur F. Davis	12,356
Adams	Free Library	Mrs. Elveretta S. Blake	20,000
Amesbury	Public Library	Alice C. Follansbee	16,000
Amherst	Amherst Library Association	Inez Chapman	13,301
Andover	Memorial Hall Library	Edna A. Brown	23,000
Arlington	Robbins Library	Elizabeth J. Newton	27,774
Ashburnham	Stevens' Public Library	Ethel M. Wheeler	6,699
Ashfield	Belding Memorial Library	Emma L. Riges	7,000
Ashland	Public Library	Mrs. Ellen M. Arnold	8,600
Athol	....do	Edith Barber	11,242
Attleboro	....do	Helen M. Claflin	18,484
Ayer	....do	S. Adelaide Blood	11,680
Barnstable	Sturgis Library	Elizabeth C. Nye	16,394
Barre	Town Library	Carrie E. Read	13,370
Bedford	Free Public Library	Fannie Wood	12,292
Belchertown	Clapp Memorial Library	Mrs. Cora E. Burnett	10,291
Belmont	Public Library	Lucy D. Luard	34,139
Bernardston	Cushman Library	Roxy Pierce	11,025
Beverly	Public Library	Martha P. Smith	36,691
Billerica	Bennett Library	Emma M. Whitford	5,843
Blackstone	Free Public Library	Timothy E. Curran	11,000
Bolton	Public Library	Fidelia C. Newton	5,640
Boston	Boston Athenæum Library	Charles Knowles Bolton	265,000
Do	State Library	Charles F. D. Belden	182,597
Do	Public Library	Horace G. Wadlin	1,121,747
Bourne	Jonathan Bourne Public Library.	Mrs. Edith F. Nickerson	6,850
Brewster	Ladies Library	Alma Rogers	7,100
Bridgewater	Public Library	Lucia L. Christian	18,510
Brimfield	....do	Mary Anna Tarbell	8,000
Brockton	....do	Frank H. Whitmore	71,416
Brookfield	Merrick Public Library	Harriet G. Brown	20,918
Brookline	Public Library	Louisa M. Hooper	
Bryantville	Cobb Library	Mrs. Julia Morton	4,901
Cambridge	Public Library	M. R. Copithorne	113,314

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XX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
MASSACHUSETTS—contd.			
Canton	Public Library	Mrs. Lucy D. Downes	
Charlemont	Free Town Library	Alice Bemis	5,000
Charlton	Free Public Library	Ruth P. Wakefield	5,447
Chatham	Eldredge Public Library	Edna M. Hardy	6,538
Chelmsford	Adams Library	Mrs. E. R. Clark	11,200
Chelsea	Public Library	Medora J. Simpson	17,524
Cheshire	Library Association	Emma E. Martin	6,500
Chicopee	Public Library	Anne A. Smith	36,000
Clinton	Bigelow Free Public Library	Helen A. Thissell	41,327
Cohasset	Paul Pratt Memorial Library	Sarah B. Collier	15,500
Concord	Free Public Library	Helen W. Kelley	44,249
Conway	Field Memorial Library	Cora M. Hassell	9,345
Cotuit	Public Library	Grace Dottridge, temporary	6,032
Cummington	Bryant Free Library	Mrs. Lottie W. Tower	8,500
Dalton	Free Public Library	Mrs. Caroline R. Flickinger	11,262
Danvers	Peabody Institute	Emilie D. Patch	29,315
Dedham	Public Library	Anna P. Rolland	22,000
Dover	Town Library	Elizabeth F. Heard	6,000
Dudley	Conant Library	Leora E. Dugar	5,500
Duxbury	Free Library	Sara B. Higgins	8,750
East Bridgewater	Public Library	Lucy L. Siddall	8,000
East Douglas	Simon Fairfield Public Library	Rosalie E. Williams	6,200
East Northfield	Talcott Library	Virginia T. Smith	8,531
Easthampton	Public Library Association	Hazel M. Benjamin	16,000
Essex	T. O. H. P. Burnham Public Library.	Ethelyn B. Story	4,950
Everett	Frederick E. Parlin Memorial Library.	Ellen L. Johnson	28,880
Do	Shute Memorial Library	Mildred R. Holt	11,039
Fairhaven	Millicent Library	Galen W. Hill	22,596
Fall River	Public Library	George W. Rankin	95,389
Falmouth	Free Public Library	Pamelia F. Robbins	9,301
Fitchburg	Public Library	George E. Nutting	59,000
Florence	Lilly Library	Mrs. S. Minerva Paxton	6,200
Framingham	Town Library	Emma L. Clarke	37,000
Franklin	Franklin Library	Ella G. Campbell	9,845
Gardner	Levi Heywood Memorial Library	Lilian Callahan	16,401
Georgetown	Peabody Library	Lois P. Noyes	9,500
Gloucester	Sawyer Free Library	Rachel S. Webber	20,755
Grafton	Public Library	Lucy W. Biscoe	14,401
Great Barrington	Mason Library	Emma W. Sheldon	15,604
Greenfield	Public Library	May Ashley	33,378
Groton	do	Emma F. Blood	13,686
Groveland	do	Helena M. Nickerson	5,359
Hadley	Goodwin Memorial Library	George C. Marsh	5,363
Hanover Center	John Curtis Free Library	Bessie M. Sproul	8,000
Harvard	Public Library	Helen L. Barnard	7,519
Hatfield	Free Public Library	C. M. Barton	7,000
Haverhill	Public Library	John G. Moulton	105,000
Hingham Center	do	Albert L. Stephenson	15,000
Hinsdale	Public Library Association	Mrs. Cora Lovell	6,500
Holbrook	do	Zenas A. French	9,100
Holden	Gale Free Library	M. Addie Holden	7,480
Holliston	Public Library	Helen L. Garratt	9,615
Holyoke	do	Frank G. Wilcox	50,080
Hopedale	Bancroft Memorial Library	Harriet B. Sornborger	12,619
Housatonic	Ramsdell Public Library	Lydia A. Fuller	7,150
Hubbardston	Free Public Library	Mrs. Lucy H. Clough	5,463
Hudson	Public Library	Grace M. Whittemore	10,966
Ipswich	Free Public Library	Mary B. Maine	11,630
Kingston	Frederic C. Adams Public Library.	Mrs. Jennie F. McLauthlen	9,450
Lancaster	Town Library	Virginia M. Keyes	39,704
Lanesboro	do		1,750
Lawrence	Free Public Library	William A. Walsh	69,246
Lee	Library Association	Mary Stallman	9,000
Leicester	Public Library	Mary D. Thurston	15,580
Lenox	Library Association	Edith O. Fitch	24,442
Leominster	Public Library	Florence E. Wheeler	32,458
Lexington	Cary Memorial Library	Marian P. Kirkland	25,722
Lincoln	Public Library	Lydia J. Chapin	10,092
Littleton	Reuben Hoar Library	Margaret E. Thacher	13,595
Lowell	City Library	Frederick A. Chase	100,000
Lunenburg	Ritter Memorial Library	L. Frances Jones	8,205
Lynn	Public Library	Harriet L. Matthews	102,302
Magnolia	Magnolia Library	Constance C. Sargent	7,000
Malden	Public Library	Herbert W. Fison	68,232
Manchester	do	Jennie C. Sargent	13,000
Mansfield	do	Ida F. Hodges	6,200

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XX.—LIBRARIANS OF PUBLIC AND SOCIETY LIBRARIES—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
MASSACHUSETTS—contd.			
Marblehead	Abbott Public Library	Mrs. Sarah E. Gregory	21,000
Marion	Library Association	Alice A. Ryder	8,410
Marlboro	Public Library	Sarah E. Cotting	31,000
Mattapoisett	Free Public Library	Grace A. Tilden	7,150
Maynard	Public Library	Mrs. Sarah F. Nyman and Nellie May.	6,190
Medfield	do	Lucretia M. Johnson	5,507
Medford	do	A. L. Sargent	50,061
Melrose	do	Carrie M. Worthen	18,000
Mendon	Taft Public Library	Mrs. Lena W. George	5,700
Merrimac	Public Library	Susanna I. Sayre	6,000
Methuen	Nevins Memorial Library	Harriet L. Crosby	21,500
Middleboro	Public Library	Mary M. Eddy	23,620
Middleton	Flint Public Library	Lillian P. Fletcher	7,823
Milford	Town Library	Nathaniel F. Blake	20,060
Millbury	Sutton Free Library	Mrs. G. R. Luther	4,500
Milton	Public Library	Gertrude E. Forrest	27,379
Monson	Free Library	Nellie F. Squier	13,685
Montague	Town Library	Kate A. Armstrong	7,588
Mount Hermon	Schauffler Memorial Library	Anna L. Miller	14,000
Nahant	Public Library	May W. Perkins	23,427
Nantucket	Nantucket Atheneum	Clara Parker	19,000
Natick	Morse Institute	Mira R. Partridge	27,981
New Bedford	Free Public Library	George H. Tripp	160,000
Newburyport	Public Library	John D. Parsons	52,015
Newton	Free Library	Harold T. Dougherty	93,802
North Abington	Public Library	Gertrude M. Gleason	9,350
North Adams	do	Mabel Temple	37,382
North Andover	Stevens Memorial Library	Elizabeth M. Pond	14,050
North Attleboro	Richards Memorial Library	Ada M. Perry	12,500
North Brookfield	Appleton Library	Alfred W. Budd	5,800
Do	Free Public Library and Reading Room.	Nellie L. Smith	9,546
North Chelmsford	Public Library	Anna C. MacKay	7,193
North Easton	Ames Free Library	Mary L. Lamprey	19,752
North Reading	Flint Library	Addie W. Gowing	6,005
Northampton	Clarke Library	Sara D. Kellogg	41,338
Do	Forbes Library	J. L. Harrison	129,927
Northboro	Free Library	M. Evelyn Potter	14,200
Northfield	Dickinson Memorial Library	Mrs. Nellie G. Randall	9,910
Norton	Public Library	Katherine Payson	7,800
Norwell	James Library	Marion G. Merritt	5,000
Norwood	Morrill Memorial Library	Jane A. Hewett	18,500
Orange	Wheeler Memorial Library	N. Gertrude Hendrickson	14,600
Orleans	Snow Library	Mary S Cummings	6,053
Oxford	Free Public Library	Mrs. Clara A. Fuller	11,000
Palmer	Young Men's Library	Clifton A. Hobson	11,000
Peabody	Peabody Institute	John E. Keefe	47,032
Pepperell	Lawrence Memorial Library	Helen M. Wiley	17,800
Petersham	Memorial Library	Fannie G. Prince	10,000
Phillipston	Phillips Free Public Library	Mrs. Flora V. Danforth	6,742
Pittsfield	Berkshire Athenæum and Museum.	Harlan H. Ballard	65,657
Plymouth	Public Library	Mrs. Flora E. Whyte	18,000
Princeton	do	Susan A. Davis	7,850
Provincetown	do	Abbie C. Putnam	14,000
Quincy	Thomas Crane Public Library	Alice G. White	38,639
Randolph	Turner Free Library	Charles C. Farnham	25,000
Reading	Public Library	Bertha L. Brown	8,987
Revere	do	Harriet T. Fenno	15,000
Rockland	Memorial Library	Angela W. Collins	14,292
Rockport	Public Library	Mabel L. Woodfall	7,498
Royalston	Phinehas S. Newton Library	Mrs. Emeline E. Mackenzie	8,927
Salem	Public Library	Gardner M. Jones	63,545
Do	Salem Athenæum	Mrs. Alice H. Stone	28,600
Sandwich	Weston Memorial Library	Annie A. Rogers	6,000
Saugus	Free Public Library	Emma E. Newhall	13,000
Sharon	Public Library	Isadora B. Paine	7,208
Shelburne Falls	Arms Library	Mrs. S. A. Field	11,000
Sherborn	Dowse Library	Elizabeth D. Coolidge	7,500
Shirley	Public Library	Grace M. Kilburn	6,136
Shrewsbury	Free Public Library	Mabel E. Knowlton	10,932
Somerset	Hood Library	Frances M. Rogers	3,000
Somerville	Public Library	Drew B. Hall	110,900
South Braintree	Thayer Public Library	Lucretia F. Hatch	16,482
South Dartmouth	Southworth Library	Theodosia P. Chase	8,000
South Hadley	Gaylord Memorial Library	Rebecca F. Smith	6,773
South Natick	Bacon Free Library	Mrs. Adelaide Williams	8,931
South Sudbury	Goodnow Library	Mrs. Warren Hunt	10,400

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XX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
MASSACHUSETTS—contd.			
Southboro	Fay Library	Susie Brewer	12,857
Southbridge	Jacob Edwards Library	Ella E. Miersch	22,000
Spencer	Richard Sugden Public Library	Alice W. Curtis	14,000
Springfield	City Library Association	Hiller C. Wellman	214,586
Springfield (Longmeadow)	Richard Salter Storrs Library		6,500
Sterling	Conant Free Public Library	Pearl L. Heywood	9,412
Stockbridge	Library Association	Agnes J. Goodwin	10,000
Stoneham	Public Library	Julia L. Crocker	14,500
Stoughton	do	Amelia Clifton	14,000
Stow	Randall Memorial Library	S. M. Lawrence	6,000
Sturbridge	Joshua Hyde Public Library	Susan L. Haynes	9,172
Sunderland	Sunderland Library	Abbie T. Montague	6,086
Swampscott	Public Library	Sarah L. Honora	14,563
Swansea	Free Public Library	Otis O. Wright	7,386
Taunton	Public Library	Joshua E. Crane	67,378
Templeton	Boynton Public Library	Grace F. Blodgett	10,502
Tewksbury	Public Library	Abbie M. Blaisdell	6,000
Topsfield	Town Library	Annie P. Gleason	12,000
Townsend	Public Library	Mrs. Evelyn L. Warren	6,966
Turners Falls	Carnegie Public Library	Louise S. Partenheimer	8,900
Tyngsboro	Littlefield Library	Jennie J. Bancroft	7,900
Upton	Town Library	Mrs. Laura C. Sadler	6,790
Uxbridge	Free Public Library	Beatrice P. Sprague	13,000
Vineyard Haven	Public Library	Bessie S. Stanton	6,657
Wakefield	Beebe Town Library	H. Gertrude Lee	18,122
Walpole	Public Library	Ida J. Phelps	14,760
Waltham	do	Orlando C. Davis	49,000
Ware	Young Men's Library Association.	Mary L. Smith, acting	17,000
Warren	Public Library	Joseph G. Hastings	12,400
Warwick	Free Library	Mrs. Alice B. Hastings	6,000
Watertown	Free Public Library	Solon F. Whitney	44,357
Wayland	do	Margaret F. Wheeler	14,717
Webster	do	Mrs. Phoebe P. Kingsbury	11,300
Wellesley	Free Library	Elizabeth H. Camp	19,271
Wenham	Public Library	Benjamin H. Conant	6,000
West Boylston	Beaman Memorial Public Library.	Annie M. Waite	9,355
West Bridgewater	Public Library	Mrs. Hattie E. Cary	7,500
West Brookfield	Merriam Public Library	Helen P. Shackley, acting	10,852
West Newbury	Public Library	Sarah O. Bailey	5,887
West Springfield	do	Rachel N. T. Stone	10,000
Westboro	do	Flora B. Brigham	17,786
Westfield	Westfield Atheneum	George L. Lewis	31,359
Westford	J. V. Fletcher Library	Mary P. Bunce	15,902
Westhampton	Reunion Library	George H. Knight	5,000
Westminster	Forbush Memorial Library	Sadie F. Greene	8,702
Weston	Public Library	Maude M. Pennock	22,398
Weymouth	Tufts Library	Abbie L. Loud	30,000
Whitinsville	Social Library	Mary R. Clarke	11,681
Whitman	Public Library	Ellena S. Spilsted	13,400
Williamsburg	Meekins Memorial Library	Myra A. Hill	8,600
Williamstown	Public Library	Lucy F. Curtis	7,800
Winchendon	Beals Memorial Library	Sylvia M. Manzer	11,074
Winchester	Public Library	Cora A. Quimby	22,122
Winthrop	do	Sabina M. Nelson	14,000
Woburn	do	George H. Evans	48,000
Worcester	Free Public Library	Robert K. Shaw	212,253
Do	Webster Free Public Library	Phoebe P. Kingsbury	11,255
Wrentham	Fiske Public Library	Mary A. Smith	6,500
Yarmouthport	Yarmouth Library Association	Mrs. Lydia C. Matthews	8,796
MICHIGAN.			
Adrian	Public Library	Margaret F. Jewell	24,500
Albion	do	Elizabeth Farnham	6,000
Allegan	do	Lenora E. Porter	7,021
Alpena	do	Emily E. Oliver	6,016
Ann Arbor	do	Nellie S. Loving	19,140
Bay City	do	Mrs. A. F. MacDonell	40,323
Do	Sage Public Library	Molly M. Gilbert	37,150
Benton Harbor	Public Library	Theodosia Falkingham	9,398
Big Rapids	Phelps Free Library	Elsa M. Robinson	8,865
Cadillac	Public Library	William F. Sanborn	15,220
Charlotte	Free Public Library	Emily B. Robb	9,210
Cheboygan	Carnegie Free Library	Amy M. Bell	7,300
Coldwater	Free Public Library	Florence M. Holmes	19,640

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XX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
MICHIGAN—continued.			
Detroit	Public Library	Adam Strohm	351,000
Dowagiac	do	Grace ReShore	9,870
Escanaba	Carnegie Public Library	Lura E. Brubaker	9,368
Fenton	A. J. Phillips Public Library	Ella M. Williams	9,000
Flint	Public Library	Lena E. Caldwell	16,100
Grand Rapids	do	Samuel H. Ranck	162,923
Greenville	School Public Library	Alice Fuller	4,875
Harbor Springs	Christian Association Library	Mrs. Bertha Fuller	4,978
Hillsdale	Mitchell Public Library	Mary Pratt	12,430
Holland	Public Library	J. R. Kanters	10,000
Houghton	do	Harriet L. Allen	10,113
Howell	Carnegie Library	E. Gladys Cook	9,743
Hudson	Public Library	Mamie E. Havens	8,704
Ionia	Hall-Fowler Memorial Library	Daisy Mary Smith, acting	7,566
Iron Mountain	Carnegie Public Library	Mary F. Carpenter	13,398
Ironwood	Carnegie Free Library	Esther Kronlund	9,300
Ishpeming	Carnegie Public Library	Mrs. Nellie E. Brayton	22,391
Jackson	Public Library	John S. Cleavinger	45,000
Kalamazoo	do	Isabella C. Roberts	50,150
Lansing	Public School Library	Mrs. E. Jennie McNeal	25,603
Do	State Library	Mary C. Spencer	200,000
Lowell	Public Library	Ferne Loomis	5,000
Ludington	do	Alice L. Wing	9,376
Manistee	do	Angie Messer	18,700
Marquette	Peter White Public Library	Alma A. Olson	29,770
Mendon	Township Free Public Library	Mrs. Grace Osgood	7,000
Menominee	Spies Public Library	Zana K. Miller	12,406
Monroe	Dorsch Memorial Library	Mrs. Jennie S. Wallace	8,946
Mount Clemens	Public Library	Agnes L. Snover	11,594
Muskegon	Hackley Public Library	Lulu F. Miller	55,000
Niles	Public Library	Orrill P. Coolidge	8,583
Painesdale	Sarah Sargent Paine Memorial Library.	Ethel Kellow	7,200
Petoskey	Public Library	Amy Lusk	6,200
Port Huron	Ladies' Library Association	Mrs. G. W. H. Smith	5,562
Do	Public Library	Katharyne Sieneau	23,000
Quincy	Free Public Library	Maud S. Barnes	3,050
Saginaw	Butman-Fish Memorial Library	Anna Benjamin	15,428
Do	East Side Public Library	Mary E. Dow	19,758
Do	Hoyt Library	Harriet H. Ames	35,220
St. Joseph	Public Library	Ida L. Eckert	7,000
Sault Ste. Marie	Carnegie Public Library	Adah Shelly	10,876
Sturgis	do	Alida Patterson	5,125
Tecumseh	Public Library	Elizabeth Widney	6,320
Three Rivers	Free Public Library	Sue I. Silliman	14,000
Traverse City	Public Library	Alice M. Wait	15,928
MINNESOTA.			
Albert Lea	Public Library	Henryetta Armstrong	7,000
Alexandria	Free Public Library	Margaret A. McCord	8,349
Anoka	Public Library	Mrs. Georgia A. Goss	6,187
Austin	Carnegie Public Library	Mrs. Flora C. Conner	8,200
Cloquet	Public Library	Mildred E. Riley	5,700
Duluth	do	Frances E. Earhart	67,623
Fairmont	do	Minnie Bird	5,500
Faribault	do	Sarah E. Le Crone	14,500
Fergus Falls	Carnegie Public Library	Amy A. Lewis	5,978
Hastings	Public and School Library	Stella Telford	6,433
Hibbing	Public Library	Dorothy Hurlbert	13,418
Keewatin	do	Helen Young Prall	2,130
Little Falls	Carnegie Public Library	Mrs. Jenny Lind Blanchard	6,000
Luverne	Public Library	Mrs. D. E. Halbert	4,053
Mankato	Free Public Library	Flora F. Carr	19,067
Minneapolis	Public Library	Gratia A. Countryman	300,000
Montevideo	do	Margaret E. Webb	7,750
Moorhead	do	Ethel S. McCubrey	6,280
Morris	do	Agnes Torpey	5,975
Northfield	do	Nellie B. Gregg	6,051
Owatonna	Free Public Library	Audiene Graham	17,500
Pipestone	Public Library	Mrs. M. I. Gilson	6,000
Red Wing	Carnegie-Lawther Library	G. L. Meyer	9,575
Rochester	Public Library	Edna Emerick	15,000
St. Cloud	do	Mrs. Marie E. Brick	13,503
St. Paul	do	W. Dawson Johnston	100,000
Do	State Library	Elias J. Lien	80,090
Sauk Center	Bryant Library	Eva M. Davis	8,800

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XX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
MINNESOTA—continued.			
Stillwater	Public Library	Mary E. Corson	14,222
Two Harbors	Free Public Library	Marion Dahl	5,422
Virginia	Public Library	Mabel Newhard	16,000
Willmar	Free Public Library	Amy Hanscom	4,204
Winona	do	Jeannette A. Clarke	35,305
MISSISSIPPI.			
Jackson	Mississippi State Library	Mrs. W. F. Marshall	90,000
MISSOURI.			
Carthage	Public Library	Alice R. Gladden	9,182
Hannibal	Garth Memorial Library	Nancy C. McLachlan	16,391
Jefferson City	Free Public Library	Julia Andrae	8,000
Do	State Library	George E. Smith	60,000
Joplin	Free Public Library	Mary B. Swanwick	23,000
Kansas City	Public Library	Purd B. Wright	191,000
Maryville	Free Public Library	Grace Langan	8,997
Moberly	do	Mrs. Bessie S. Lee	8,000
St. Joseph	Public Library	Jesse Cunningham	85,000
St. Louis	do	Arthur E. Bostwick	443,911
Sedalia	do	Frances Fordice	17,897
Springfield	do	Harriet N. Horine	7,300
Trenton	Jewett Norris Library	Maud Crecelius	5,000
MONTANA.			
Anaconda	Hearst Free Library	Elizabeth L. Thomson	16,000
Billings	Parmly Billings Memorial Library.	Elizabeth L. Abbott	17,000
Bozeman	Public Library	Elizabeth McCord	12,000
Butte	Free Public Library	John F. Davies	55,000
Deer Lodge	William K. Kohrs Memorial Library.	Ruth Stetson	5,791
Dillon	Public Library	Mary L. Innes	7,640
Great Falls	do	Louise M. Fernald	17,423
Helena	do	Josephine M. Haley	50,000
Do	State Law Library	Ashburn K. Barbour	31,000
Kalispell	Public Library	Elizabeth P. Ritchie	6,522
Livingston	do	Ruth V. Steadman	6,200
Miles City	Carnegie Library	Mrs. Laura Zook	7,000
Missoula	Public Library	Grace M. Stoddard	17,000
NEBRASKA.			
Aurora	Public Library	Lillian Moore	5,867
Beatrice	Free Public Library	Frances Morton	14,368
Columbus	Public Library	Clara L. Howard	4,524
David City	do	Lillian M. Simpkins	5,643
Falls City	Lydia Brunn Wood Library	Mary Hutchings	8,000
Fremont	Public Library	Grace R. Barbee	9,089
Grand Island	do	D. Houck	6,497
Hastings	Carnegie Library	Mrs. Ida E. Capps	7,154
Kearney	Public Library	Pauline Frank	10,474
Lincoln	City Library	Lulu Horne	40,526
Do	State Library	H. C. Lindsay	72,469
McCook	Public Library	Grace Willetts	5,332
Nebraska City	City Public Library	Anne Stevenson	5,000
Omaha	Public Library	Edith Tobitt	111,312
Plattsmouth	do	C. Olive Jones	6,500
York	do	Olive B. Allen	7,718
NEVADA.			
Carson City	State Library	Frank J. Pyne	73,000
Reno	Free Public Library	E. N. Damon	17,500
NEW HAMPSHIRE.			
Alton	Free Public Library	Annie A. Wheeler	3,700
Amherst	Town Library	Mrs. Alice M. Wyman	5,534
Antrim	James A. Tuttle Memorial Library.	Sarah M. Adams	5,100
Berlin	Free Public Library	Adria A. Hutchinson	9,570
Bristol	Minot-Sleeper Library	Mrs. Mary A. Dodge	8,000
Charlestown	Silsby Free Public Library	Anna L. Webber	7,000
Claremont	Fiske Free Library	Mrs. M. S. Ide	10,200
Colebrook	Public Library	Sarah E. Rolfe	5,000

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XX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
NEW HAMPSHIRE—contd.			
Concord	Public Library	Grace Blanchard	30,000
Do	State Library	Arthur H. Chase	156,000
Dover	Public Library	Caroline H. Garland	46,000
Dublin	....do	Minnie E. Leffingwell	7,210
East Derry	Taylor Library	C. Louise Bachelder	7,260
East Jaffrey	Jaffrey Public Library	Lucia B. Cutter	6,954
Exeter	Public Library	Carrie W. Byington	19,162
Fitzwilliam	Town Library	Annie L. Colby	7,936
Franconia	Abbie Greenleaf Library	Eva M. Aldrich	5,075
Franklin	Public Library	Mrs. Barron Shirley	10,200
Greenland	Weeks Public Library	Lillian A. Odell	6,025
Hancock	Town Library	Annie L. Putnam	6,615
Hanover	Howe Library	Etta M. Clark	6,173
Henniker	Tucker Free Library	M. Marion Cole	6,020
Hinsdale	Public Library	Charlotte S. Slate	10,731
Hollis	Social Library	Clara E. Smith	5,144
Hudson	Hills Memorial Library	Mrs. Eliza B. Leslie	6,300
Keene	Public Library	Mary L. Saxton	18,474
Kingston	Nichols Memorial Library	Mrs. Nellie F. Ingalls	6,152
Laconia	Public Library	Olin S. Davis	22,499
Lancaster	....do	Martha W. Brackett	10,000
Lebanon	....do	Emma Morris	8,000
Lisbon	....do	Nettie L. Kelsea	4,699
Littleton	....do	Jennie E. Smith	10,000
Manchester	City Library	F. Mabel Winchell	79,000
Marlboro	Frost Free Library	Mrs. Carrie T. Whitney	7,000
Meredith	Public Library	Mrs. Lillian Wadleigh	4,500
Milford	Free Library	Annabell C. Secombe	12,642
Nashua	Public Library	Sarah P. Barker	38,000
New Hampton	Gordon-Nash Library	Rev. Lewis P. Bickford	16,031
New Ipswich	New Ipswich Library	Frances L. Nash	6,727
Newmarket	Public Library	Mrs. Charles H. Mathes	6,230
Newport	Richards Free Library	Anne Parmelee	10,103
Peterboro	Town Library	Mrs. Eva E. Coffin	14,940
Portsmouth	Public Library	Hannah G. Fernald	23,020
Rochester	....do	Lillian E. Parshley	18,716
Tilton	Hall Memorial Library	Mary M. Emery	7,905
Wakefield	Public Library	Alice C. Milliken	7,161
Walpole	Bridge Memorial Library	Frances M. Sabin	11,086
Warner	Pilsbury Free Library	Mary B. Harris	12,000
Whitefield	Public Library	Alice E. Dodge	6,850
Wilton	....do	Bessie F. Bales	9,349
Wolfeboro	Brewster Free Library	Elizabeth Brewster	6,090
Woodsville	Free Public Library	Mrs. S. M. Chamberlin	6,500
NEW JERSEY.			
Asbury Park	Public Library	Josephine W. Porter	14,000
Atlantic City	Free Public Library	Alvaretta P. Abbott	33,866
Bayonne	....do	Mary G. Peters	45,000
Belleville	....do	Mrs. E. A. Shattuck	12,998
Bernardsville	Bernards Library Association	Edith H. Crowell	6,000
Bloomfield	Jarvie Memorial Library	Metta R. Ludey	19,000
Bridgeton	Bridgeton Library	Emma V. Walhen	7,000
Burlington	Burlington Library	Lydia Weston	19,696
Camden	Free Public Library	William H. Ketler	61,682
Cranford	....do	May D. Bradley	7,700
Dover	....do	Martha A. Burnet	7,090
East Newark	East Newark Library	Thomas J. Carey	10,000
East Orange	Free Public Library	Louise G. Hinsdale	48,630
Elizabeth	....do	C. A. George	48,000
Englewood	....do	Irene A. Hackett	15,668
Gladstone	Gladstone and Peapack Public Library.	J. H. Wood	1,200
Glen Ridge	Free Public Library	Margaret D. Brower	8,750
Hackensack	Johnson Public Library	Mary Boggan	20,288
Haddonfield	Free Public Library	Anna L. Cawley	8,000
Hoboken	....do	Thomas F. Hatfield	67,605
Jersey City	....do	Edmund W. Miller	169,951
Kearny	....do	M. Belle Kilbour	11,408
Montclair	....do	Alta M. Barker	38,801
Morristown	Morristown Library and Lyceum.	Edna Shelley	3,290
New Brunswick	Free Public Library	Cornelia A. See	34,265
Do	Gardner A. Sage Library	John C. Van Dyke	52,000
Newark	Free Public Library	John C. Dana	239,515
Newton	Dennis Library	Mrs. Mary E. Cook	8,800
Nutley	Free Public Library	Irene Calvert Phillips	5,106

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XX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
NEW JERSEY—continued.			
Orange	Free Library	Elizabeth H. Wesson	40,520
Passaic	Public Library	H. Elizabeth White	40,101
Paterson	Free Public Library	George F. Winchester	63,935
Perth Amboy	....do	Anne O. Shivers	12,475
Plainfield	Public Library and Reading Room.	Florence M. Bowman	54,928
Princeton	Free Public Library	Agnes Miller	8,000
Rahway	Rahway Library Association	A. W. Lupton	17,000
Riverton	Free Library	Elizabeth B. Campbell	5,400
Rockaway	Free Public Library	Etta Davey	3,000
Rutherford	....do	Dorothy E. Burrows	8,274
Somerville	....do	Elizabeth Carter	6,750
South Orange	....do	Julia Schneider	10,236
Summit	....do	Emilie Hill	12,980
Tabor	Mount Tabor Free Library	Charlotte E. Johns	4,045
Trenton	Free Public Library	Howard L. Hughes	69,957
Do	State Library	John P. Dullard	99,000
Vineland	Free Public Library	Minnie G. Clark	7,327
West Hoboken	....do	Paul M. Konert	13,208
Westfield	....do	Bessie Brown	9,000
NEW MEXICO.			
Albuquerque	Public Library	Pauline Madden	10,000
East Las Vegas	Carnegie Public Library	Elisabeth Cooley	7,300
NEW YORK.			
Albany	Free Library	Miss C. A. Deevey	10,226
Do	State Library	James I. Wyer, jr	433,982
Do	Union Free Library	Augusta B. Walsh	10,225
Do	Young Men's Association, Central Library.	E. Elizabeth Barker	25,699
Albion	Swan Library	Lillian A. Achilles	12,700
Alden	Ewell Free Library	Mary C. Patrell	5,440
Amsterdam	Free Library	Mrs. Katherine B. Cooley	15,317
Angelica	....do	Mrs. Mary G. Horner	7,455
Auburn	Seymour Library	Elizabeth Porter Clarke	28,500
Bath	Davenport Library	Myrtle I. Roy	7,823
Belmont	Free Library	Ella Sortore	5,479
Binghamton	Public Library	William F. Seward	38,995
Boonville	Erwin Library	Alice D. Freeman	5,823
Bridge Hampton	Hampton Library	May T. Van Scoy	10,837
Bronxville	Public Library	Mrs. Roger M. Sherman	6,483
Brooklyn	....do	Frank P. Hill	862,000
Do	Pratt Institute Free Library	Edward F. Stevens	110,000
Buffalo	Grosvenor Library	Frederick C. Wood	106,000
Do	Public Library	Walter L. Brown	342,144
Cambridge	....do	May Carpenter	7,852
Camden	Library Association	Mrs. O. A. Manzer	6,000
Canandaigua	Wood Library	S. N. Lee	7,700
Canastota	Public Library	Mrs. Nellie H. Willis	8,454
Canton	Free Library (Benton Memorial)	Fanny E. Wead	7,146
Catskill	Public Library	Emily F. Becker	10,000
Cazenovia	....do	Elizabeth B. Needham	14,021
Chatham	....do	Mabel E. Stafford	9,093
Clinton	Kirkland Town Library	Ruth W. Raymond	6,009
Cohoes	City Library	Elmer E. Bell	6,800
Cooperstown	Village Club and Library	Ellen Wilson	5,331
Corning	Free Library	Grace Ingersoll	10,289
Cortland	Franklin Hatch Library Association.	Margaret H. Force	6,215
Coxsackie	Heermance Memorial Library	Esther C. Johnson	6,298
Dansville	Public Library	Susie M. Parker	6,281
Delhi	Free Library	Stanley S. Kilkenny	6,000
Dryden	Southworth Library	Jennie Kennedy	11,122
Dunkirk	Free Library	Carlina M. Monchow	15,790
East Hampton	....do	E. C. Hedges	10,900
Ellenville	Public Library	Mrs. B. B. Demarest	7,500
Elmira	Steele Memorial Library	Mrs. Kate D. Andrew	21,834
Fredonia	Darwin R. Barker Library	Florence S. Hall	10,964
Fulton	Public Library	Frances V. Forsyth	8,210
Geneseo	Wadsworth Library	Ethel Frazer	20,747
Geneva	Free Library	Margaret A. Hayes	8,630
Glen Cove	Public Library	Eugenie C. Thorne	8,800
Glens Falls	Crandall Free Library	Gertrude Ferguson	13,635
Gloversville	Free Library	Lucy Edel	31,431
Gouverneur	....do	Nettie E. Rutherford	7,337
Greene	Moore Memorial Library	Mary Summers	7,042

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XX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
NEW YORK—continued.			
Greenwich	Free Library	Robert L. Shanks	3,700
Haverstraw	King's Daughters' Public Library.	Mary E. Van Orden	7,115
Herkimer	Free Library	Edith M. Sheaf	13,000
Homer	Phillips Free Library	Mary A. Ferguson	5,750
Hornell	Public Library	Mary E. Windsor	19,637
Hudson	Hendrick Hudson Chapter Free Library.	Maud A. Rice	7,000
Ilion	Free Public Library	Nellie Mae Cheney	17,170
Irvington-on-Hudson	Guiteau Library	Emma Knodel	8,836
Ithaca	Cornell Library Association	Charles L. Tyler	26,164
Jamestown	James Prendergast Free Library.	Lucia T. Henderson	25,500
Johnstown	Public Library	Katherine M. Seaman	14,449
Kingston	City Library	Marion Herbert	9,429
Little Falls	Public Library	Mabel E. Richards	11,345
Lockport	do	Carrie F. Gates	11,350
Marathon	Peck Memorial Library	J. W. Livingston	6,325
Middletown	Leonora S. Bolles Memorial Library.	William B. Ewer	10,933
Do	Middletown Library	Mary K. Van Keuren	16,621
Moravia	Powers Library	Mrs. Sarah A. C. Butler	8,080
Mount Vernon	Public Library	Frances D. Thomson	33,523
New Rochelle	do	Jessie F. Brainerd	36,893
New York	do	Edwin H. Anderson	2,467,275
New York (Jamaica P. O.)	Queens Borough Public Library.	Jessie F. Hume	214,916
Newark	Free Public Library	Sue A. Saltsman	10,142
Newburgh	Free Library	Lillian O. Estabrook	44,486
Niagara Falls	Public Library	Jennie A. Witmer	24,929
North Tonawanda	do	Mrs. Mary T. Warren	13,235
Norwich	Guernsey Memorial Library	N. Louise Ruckteshler	13,341
Nyack	Nyack Library	Helen L. Powell	10,482
Ogdensburg	Public Library	Mary K. Hasbrouck	18,320
Olean	do	Maud D. Brooks	13,238
Oneonta	do	Mrs. Elizabeth W. Blackall	13,816
Ossining	do	Margaret Acker	8,511
Oswego	City Library	Robert S. Kelsey	10,000
Owego	Coburn Free Library	Lilian E. Foster	10,842
Oxford	Oxford Memorial Library	Lillian J. Emerson	7,122
Oyster Bay	Free Library	Luie P. Sammis	7,178
Patchogue	Public Library	Mrs. Alma D. Custead	7,000
Peekskill	Field Library	Julia A. Sprague	9,800
Penn Yan	Public Library	Henrietta H. Kimball	8,431
Plattsburg	do	Ernest S. Hall	15,719
Port Henry	Sherman Free Library	Anna L. Walton	7,781
Port Jervis	Free Library	Anna E. Wells	20,718
Potsdam	Public Library and Reading Room.	Mrs. Sadie A. Bixby	7,317
Poughkeepsie	Adriance Memorial Library	John C. Sickley	54,043
Rensselaer	Bath-on-Hudson Public Library.	Alice Ashton	3,583
Rochester	Public Library	William F. Yust	72,296
Rockville Center	do	Winona C. Martin	6,850
Rome	Jervis Library Association	Eugenie Stevens	17,525
Rye	Free Reading Room	Luella Otis Beaman	6,659
Sag Harbor	John Jermain Memorial Library.	Mrs. Olive P. Young	10,820
Salem	Bancroft Public Library	Frances F. Leighton	10,000
Saranac Lake	Free Library	William D. McNeil	6,800
Saugerties	Public Library	Alida A. MacAdam	9,175
Schenectady	do	Henry Glen	38,860
Seneca Falls	Mynderse Library	Ellen F. Wickes	4,494
Shelter Island	Public Library	Mrs. M. H. Conklin	6,124
Sherburne	do	Adelaide E. Harrington	6,887
Sherman	Minerva Free Library	Florence E. Hawley	5,850
Sidney	Public Library	Bessie Talcott	7,057
Skaneateles	Library Association	Lydia H. Cobane	15,397
Solvay	Public Library	Cornelia Mertens	7,000
Southampton	Rogers Memorial Library	Julia W. Foster	11,818
Springville	Public Library	Lucy A. Bensley	9,435
Syracuse	do	Paul M. Paine	114,411
Tarrytown	Young Men's Lyceum Library	Flora C. Millard	
Tonawanda	Public Library	Mrs. Ada M. Rork	7,913
Troy	do	Mary L. Davis	49,486
Utica	do	Caroline M. Underhill	85,293
Walton	W. B. Ogden Free Library	Mrs. Eugenia Smith	6,275
Warrensburg	Richards Library	Mary S. Crandall	2,810
Warsaw	Public Library	Helen M. Cameron	7,604
Waterloo	Library and Historical Society	Lula M. Clark	7,406
Watertown	Roswell P. Flower Memorial Library.	Samuel A. Hayt	30,000
Wellsville	David A. Howe Public Library	Fannie E. Crittenden	11,719

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XX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
NEW YORK—continued.			
Westfield	Patterson Library	Sarah H. Ames	18,914
White Plains	Public Library	Clara F. Hopper	16,682
Wyoming	Free Library	Flora J. Peck	6,954
Yonkers	Public Library	Helen M. Blodgett	36,000
NORTH CAROLINA.			
Asheville	Pack Memorial Library	Ann Talbot Erwin	13,022
Charlotte	Carnegie Library	Mary B. Palmer	8,000
Durham	Public Library	Mrs. A. F. Griggs	6,000
Greensboro	....do	W. S. Houston	15,006
Ledger	Good Will Free Library	A. W. Willis	12,000
Raleigh	Olivia Raney Library	Jennie H. Coffin	13,780
Do	State Library	M. O. Sherrill	44,529
Wilmington	Public Library	Alice Le Grand	6,810
Winston-Salem	Carnegie Public Library	Pamela Bynum	7,450
NORTH DAKOTA.			
Bismarck	State Law Library	J. H. Newton	10,250
Devils Lake	Carnegie Library	Dorothy Dodge	4,253
Dickinson	Public Library	Helen F. Carleton	4,207
Fargo	....do	Winnie Bucklin	9,825
Grand Forks	....do	Adah Durand	10,000
Jamestown	....do	Alice M. Paddock	6,500
Minot	Free Public Library	Margaret Greene	6,000
OHIO.			
Akron	Public Library	Mary P. Edgerton	24,000
Alliance	Carnegie Free Library	Margaret E. Atwell	10,000
Ashtabula	Public Library	Ethel J. MacDowell	9,172
Bellefontaine	Carnegie Free Library	Laura O. Morgan	8,050
Bellevue	Carnegie-Stahl Public Library	Emma C. Sutter	8,000
Bryan	Free Public Library	Alice M. Walt	5,600
Bucyrus	Public Library	Clara L. Angell	10,000
Cadiz	....do	Dorothy McCann	7,000
Cambridge	....do	Martha G. Robins	9,500
Canton	Public Library Association	Mary P. Martin	24,926
Carey	Dorcas Carey Public Library	Margie Sutphen	5,540
Cincinnati	Public Library	N. D. C. Hodges	501,013
Circleville	....do	Mary E. Wilder	15,965
Cleveland	....do	William H. Brett	542,992
Clyde	....do	Chella Hutchinson	6,800
Columbus	....do	John J. Pugh	98,000
Do	State Library	C. B. Galbreath	185,000
Conneaut	Carnegie Public Library	Marie T. Brown	9,086
Coshocton	Public Library	Eleanor Olney	10,759
Cuyahoga Falls	Taylor Memorial Library	Mary L. Graham	6,000
Dayton	Public Library	Electra C. Doren	85,000
Defiance	....do	Jewel Fouke	13,721
Delaware	City Library	Mrs. Margaret Lahr	9,350
East Liverpool	Carnegie Public Library	Mary H. Hall	10,242
Elyria	Elyria Library	Grace M. Petersen	28,297
Findlay	Public Library	Mary B. Morrison	12,018
Fremont	Birchard Library	Mrs. Harriet A. Gast	20,000
Galion	Public Library	Estella B. Coyle	6,017
Gallipolis	....do	Mrs. Addie A. Vanden	7,457
Geneva	Free Public Library	Mrs. Viola A. Wheaton	6,000
Germantown	Public Library	Mrs. Adelaide Taylor	6,615
Greenville	Carnegie Library	Minnie J. Routzong	14,600
Hamilton	Lane Public Library	Hattie S. James	13,000
Hillsboro	Public Library	Frances H. Detwiler	8,000
Ironton	Briggs Public Library	Nellie John Shaw	7,769
Lancaster	Public Library	Ella Hite	10,576
Lebanon	....do	Jennie Unglesby	8,626
Lima	....do	Martha Gamble	12,500
Lisbon	Lepper Library	Mrs. M. P. Springer	4,500
London	Public Library	Hattie D. Smith	7,000
Lorain	....do	Elizabeth K. Steele	10,234
Mansfield	Free Public Library	Helen J. Fox	20,000
Marietta	Public Library	Willia D. Cotton	16,000
Marion	....do	Helen L. Kramer	9,766
Massillon	McClymonds Public Library	Clara Miller	20,627
Medina	Franklin Sylvester Library	Evangeline Johnson	10,050
Mount Vernon	Public Library	Joma P. Arndt	8,371
New Straitsville	....do	Mrs. Maria E. Martin	6,000
Newark	....do	Mrs. Neva E. Rees	10,000
Niles	....do	Ida E. Sloan	5,987
Painesville	....do	Margaret Kilbourne	12,800

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XX.—LIBRARIANS OF PUBLIC AND SOCIETY LIBRARIES—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
OHIO—continued.			
Perrysburg	Way Library	Eleanor D. Moderwell	11,075
Portsmouth	Free Public Library	Nana A. Newton	31,075
Salem	Public Library	Mrs. H. S. Carey	10,552
Sandusky	Library Association	Edna A. Holzaepfel	20,995
Shelby	Marvin Memorial Library	Caroline Marvin	6,000
Sidney	Public Library	Emma Graham	12,500
Springfield	Warder Public Library	Alice Burrowes	32,370
Tiffin	Public Library	Jessie D. Hershiser	11,132
Toledo	....do	Herbert S. Hirshberg	100,000
Urbana	....do	Mrs. Harriet C. Milne	10,000
Van Wert	Brumback Library	Anna L. Holding	26,808
Warren	Public Library	Cornelia G. Smith	20,032
Washington Courthouse	Carnegie Public Library	Elizabeth Johnson	7,000
Wellington	Public Library	Edith E. Robinson	9,791
Wilmington	Carnegie Library	Minnie Farren	6,000
Wooster	Public Library	Myrtle M. Allen	9,636
Xenia	Greene County Library	Etta G. McElwain	15,863
Youngstown	Reuben McMillan Free Library	Joseph L. Wheeler	66,000
Zanesville	John McIntire Public Library	Mary E. Elder	25,010
OKLAHOMA			
El Reno	Carnegie Public Library	Elizabeth Sinclair	6,073
Enid	....do	Cora C. Porter	8,667
Guthrie	Carnegie Library	Mrs. Bertha G. McBride	8,405
Muskogee	Public Library	Mary R. Radford	9,694
Oklahoma	Carnegie Library		25,775
Do	State Library	E. G. Spilman	40,000
Shawnee	Carnegie Public Library	Trimmier S. Funk	10,525
OREGON.			
Ashland	Free Public Library	Blanche E. Hicks	6,083
Astoria	Public Library	Katherine C. Barker	6,000
Baker	....do	Lula M. Smith	8,000
Medford	....do	Elizabeth Roomson	6,000
Pendleton	Umatilla County Library	Sabra L. Nason	9,647
Portland	Library Association	Mary F. Isom	240,975
Salem	Public Library	Anne D. Swezey	11,807
Do	State Library	Cornelia Marvin	108,339
The Dalles	Wasco County Library	Corinne A. Metz	10,989
PENNSYLVANIA.			
Allentown	Free Library	Isabel McC. Turner	10,374
Ardmore	....do	B. Edith Stadelman	6,501
Athens	Spalding Memorial Library	Helen Thurston	6,882
Beaver Falls	Carnegie Free Library	Hazel R. Clifton	13,023
Bethlehem	Free Library of the Bethlehems	Elizabeth D. Burrows	9,510
Bloomsburg	Public Library	Edith Patterson	7,417
Braddock	Carnegie Free Library	George H. Lamb	65,000
Bradford	Carnegie Public Library	Susan L. Sherman	21,391
Butler	Free Public Library	Clara B. McJunkin	5,000
Canton	Green Free Library	Sadie L. Parsons	7,325
Carlisle	J. Herman Bosler Memorial Library.	William Homer Ames	7,063
Carnegie	Andrew Carnegie Free Library	Emma L. Rood	16,000
Chester	Free Library	A. Vera Mullineaux	7,500
Do	West End Free Library	Mary H. Jones	4,139
Connellsville	Carnegie Free Library	Margaret M. Whiteman	13,860
Corry	Public Library	Mrs. Emma A. Dean	6,077
Coudersport	....do	Chloe A. Haughenberry	6,700
Danville	Thomas Beaver Library	Janet Bird	16,385
Darby	Free Library	Helen M. Serrill	8,000
Duquesne	Carnegie Free Library	Charles E. Wright	26,000
Easton	Public Library	Henry F. Marx	27,853
Erie	....do	Mrs. Jean A. Hard	55,849
Fallsington	Fallsington Library	Mary E. Watson	9,197
Franklin	Public Library	Mary H. Clarke	9,805
Germantown	Friends Free Library	Hannah M. Jones	30,361
Hanover	Public Library	Olive M. Ryder	12,766
Harrisburg	....do	Alice R. Eaton	19,000
Do	State Library	Thomas L. Montgomery	175,000
Hatboro	Union Library	C. E. Yerkes	16,000
Hazleton	Public Library	Alice Willigerod	16,500
Jenkintown	Abington Library Society	Florence M. Ridpath	15,000
Johnstown	Cambria Free Library	L. Helen Berkey	17,120
Kennett Square	Bayard Taylor Memorial Library	Alice W. Swayne	5,000
Lancaster	A. Herr Smith Memorial Library	Helen E. Myers	14,503

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XX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
PENNSYLVANIA—contd.			
Lansdowne	Free Public Library	M. Sophronia Beatty	5,800
Lebanon	Public Library	Helen S. Seltzer	7,335
Lock Haven	Annie Halenbake Ross Library	Florence Hulings	7,719
Mauch Chunk	Dimmick Memorial Library	Inez Crandle	13,297
McKeesport	Carnegie Free Library	Marian Price	16,000
Meadville	Free Public Library	Florence M. Scott	8,363
Media	Free Library	Rebecca Smedley, jr	6,748
Montrose	Susquehanna County Historical Society and Free Library Association.	Mildred Bray	9,700
Mount Holly Springs	Amelia S. Givin Free Library	George R. Klapp	5,000
Munhall	Carnegie Library of Homestead	W. F. Stevens	46,300
New Castle	Free Public Library	Alice M. Sterling	9,353
Norristown	William McCann Library	Helen A. Bomberger	8,174
North East	McCord Memorial Library	Rebecca M. Leete	5,500
Oakmont	Oakmont Library	Blanche McIlvaine	5,833
Oil City	Carnegie Public Library	Emily S. Glezen	14,914
Philadelphia	Free Library	John Ashurst	594,992
Phoenixville	Public Library of the Phoenixville School District.	Elmira W. Pennypacker	10,815
Pittsburgh	Carnegie Free Library of Allegheny.	Edward E. Eggers	115,000
Do	Carnegie Library of Pittsburgh	Harrison W. Craver	422,201
Pottsville	Free Public Library	Flora P. Roberts	11,000
Reading	Public Library	Edward A. Howell	43,319
Ridley Park	Ridley Park Library	Alma L. Deppisch	5,564
Scottdale	Free Public Library	Edna L. Krouse	10,000
Scranton	Public Library	Henry J. Carr	78,500
Sewickley	do	Harriet D. McCarty	13,132
Towanda	do	Dora S. Potter	8,406
Warren	do	Mary C. Weiss	30,000
Washington	Citizens' Free Library	Janet M. Clark	16,898
West Chester	Library Association	Sarah P. Bedford	11,873
Wilkes-Barre	Osterhout Free Library	Myra Poland	47,909
Williamsport	James V. Brown Library	O. R. Howard Thomson	27,161
Yardley	Yardleyville Library Co	Dorothy Wightman	5,000
York	Public Library	A. Wanner	14,979
RHODE ISLAND.			
Anthony	Free Library	Myra S. Anthony	5,980
Apponaug	do	Mrs. Alice S. Means	7,394
Ashaway	do	L. R. Crandall	7,168
Auburn	Public Library	Mrs. Clara L. Foster	10,000
Barrington	do	Mrs. Erma S. Bradford	12,380
Bristol	Rogers Free Library	George C. Arnold	20,303
Carolina	Public Library	Friend W. Brooks	5,252
Centerdale	Union Library	Frank C. Angell	6,345
Central Falls	Free Public Library	Edward E. Calder	17,500
Cranston	Arlington Public Library	Mary L. Walker	5,682
Crompton	Free Library	Bertha M. Brayton	7,147
East Greenwich	do	Mrs. Ella D. Chapman	8,898
East Providence	Watchemoket Free Public Library.	Mrs. Jennie E. Briggs	9,468
Edgewood	Free Public Library	Alice W. Morse	6,530
Greenville	Public Library	May B. Lamb	5,585
Hope Valley	Langworthy Public Library	Clara A. Olney	7,500
Jamestown	Philomenian Library	Mrs. L. C. Hammond	7,779
Kingston	Free Library	Isabel Eddy	9,343
Lakewood	do	Frank B. Wight	6,701
Newport	People's Library	Luella K. Leavitt	32,522
Do	Redwood Library	George L. Hinckley	62,000
Oak Lawn	Free Public Library	Ernest L. Sperry	7,881
Olneyville	Free Library	Harriet N. Richardson	11,700
Pawtucket	Deborah Cook Sayles Public Library.	William D. Goddard	38,543
Peace Dale	Narragansett Library Association.	Gertrude Whittemore	15,024
Phenix	Pawtuxet Valley Free Library	Mrs. M. E. W. King	10,133
Providence	Public Library	William E. Foster	181,306
Do	State Library	Herbert O. Brigham	40,730
Riverside	Public Library	Mary W. Blodget	6,156
Rumford	East Providence Centre Free Library.	Bessie D. Paul	5,946
Shawomet	League Free Library	Mrs. Mary A. S. Lane	6,126
Tiverton	Whitridge Hall Free Library	Mrs. Mary J. S. Stimson	6,540
Warren	George Hail Free Library	Emilie A. Ide	10,280
Westerly	Public Library	Joseph L. Peacock	39,533
Woonsocket	Harris Institute Library	Ama H. Ward	20,863

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XX.—LIBRARIANS OF PUBLIC AND SOCIETY LIBRARIES—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
SOUTH CAROLINA.			
Anderson	Public (Carnegie) Library	Mrs. G. H. Geiger	6,200
Charleston	Library Society	Ellen M. Fitz Simons	47,000
Columbia	State Library	Mrs. Virginia G. Moody	35,000
Greenville	Meblett Free Library	Mrs. Rebecca Deal	12,000
Marion	Public Library	Louise M. McMaster	5,700
Spartanburg	Kennedy Free Library	Mary M. Baugham	8,000
SOUTH DAKOTA.			
Aberdeen	Alexander Mitchell Library	Mrs. A. H. Drum	7,631
Deadwood	Public Library	Mrs. Elizabeth S. Phelps	5,342
Lead	Hearst Free Library	Esther Thompson, acting	10,309
Mitchell	Carnegie Library	Edla Laurson	6,426
Pierre	....do	Mrs. Maud Russell Carter	5,600
Do	State Library	Doane Robinson	60,000
Redfield	Carnegie Library	Myrtle Francis	4,365
Sioux Falls	Carnegie Free Public Library	A. A. Caille	14,405
Vermillion	Public Library	Mildred I. Grange	3,580
Yankton	Carnegie Library	Jessie Bartholomew	3,757
TENNESSEE.			
Chattanooga	Public Library	Margaret S. Dunlap	38,595
Knoxville	Lawson McGhee Library	Mary M. Nelson	22,000
Memphis	Cossitt Library	Charles D. Johnston	140,000
Nashville	Carnegie Library	Margaret McE. Kercheval	74,683
Do	State Library	Mary Skeffington	200,000
TEXAS.			
Austin	State Library	C. Klaerner	36,300
Cleburne	Carnegie Public Library	Rebecca Royall	7,868
Corsicana	Public Library	Mrs. Mattie C. Houston	10,000
Dallas	....do	Rose M. Leeper	52,000
Denison	XXI Club Library	Mrs. Leo Short	1,950
El Paso	Public Library	Edith G. Coyne	11,786
Fort Worth	Carnegie Public Library	Mrs. Charles Scheuber	31,166
Galveston	Rosenberg Library	Frank C. Patten	58,000
Houston	Lyceum and Carnegie Library	Julia Ideson	43,293
Lockhart	Dr. Eugene Clark Library	Mae Camp	4,596
San Antonio	Carnegie Library	Elizabeth H. West	45,452
Temple	Carnegie Public Library	Mrs. W. b. Bands	5,133
Tyler	Public Library	Rumana McManio	8,554
Waco	....do	Pauline McCauley	20,450
Waxahachie	N. P. Sims Library	Irene D. Gallaway	6,798
UTAH.			
Ogden	Carnegie Free Library	Grace W. Harris	15,226
Salt Lake City	Free Public Library	Joanna H. Sprague	66,326
Do	State Library	H. W. Griffith	16,100
VERMONT.			
Barre	Aldrich Public Library	Ruth Parker	12,000
Bellows Falls	Rockingham Free Public Library.	Mrs. Nellie M. Plantier	12,000
Bennington	Free Library	Mary A. Patch	7,700
Brandon	Free Public Library	Mrs. Ida J. S. Kingsley	6,600
Brattleboro	Free Library	Mary Shakshober	21,500
Burlington	Fletcher Free Library	George D. Smith	42,000
Cavendish	Fletcher Town Library	E. G. White	6,000
Chelsea	Public Library	Mary J. George	8,959
Danby	S. L. Griffith Memorial Library	Vera H. Griffith	8,639
Derby Line	Haskell Free Library	O. M. Carpenter	8,110
Fair Haven	Free Library	Agnes McCaw	8,000
Lyndonville	Cobleigh Public Library	Elizabeth C. Hills	5,249
Manchester	Mark Skinner Library	Eleanor Eggleston	19,341
Middlebury	Public Library	Susan E. Archibald	9,277
Montpelier	Kellogg-Hubbard Library	Evelyn S. Lease	30,125
Do	State Library	George W. Wing	74,000
Newbury	Tenney Memorial Library	F. M. Atkinson	7,595
Newport	Goodrich Memorial Library	Lizzie M. Sargent	9,817
Pittsford	Maclure Library	Mary T. Randall	8,000
Poultney	Public Library	Lelia M. Vaughan	5,600
Proctor	Free Library	Mary K. Norton	9,374
Randolph	Kimball Public Library	Desier C. Moulton	8,000
Rutland	Free Library	Lucy D. Cheney	22,728
Do	H. H. Baxter Memorial Library.	Mrs. A. P. Riker	14,000
St. Albans	Free Library	Bertha C. Jennison	9,000

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XX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian	Number bound volumes.
VERMONT—continued.			
St. Johnsbury	St. Johnsbury Athenæum	Edward T. Fairbanks	19,000
Springfield	Spofford Library	Elizabeth McCarthy	8,689
Strafford	Harris Library	Helen D. Moore	7,000
Vergennes	Bixby Memorial Free Library	Edith J. Chamberlin	8,100
Waterbury	Public Library	Bertha E. Joslyn	5,000
Windsor	Library Association	Jennie C. Penniman	16,400
Woodstock	Norman Williams Public Library.	Alice L. Eaton	19,500
VIRGINIA.			
Alexandria	Alexandria Library	Alice J. Green	8,000
Fredericksburg	Wallace Library	Sally N. Gravatt	5,000
Lynchburg	Geo. M. Jones Memorial Library.	E. K. Peck, acting	5,000
Norfolk	Public Library	William H. Sargeant	23,942
Richmond	State Library	H. R. McIlwaine	108,000
Winchester	Handley Library	C. Vernon Eddy	7,000
WASHINGTON.			
Bellingham	Public Library	K. M. Ryan	20,000
Everett	....do		9,704
Hoquiam	....do	Ethelwyn Crane	5,580
North Yakima	....do	Jessie A. Ballard	6,368
Olympia	Washington State Library	J. M. Hill	32,000
Ritzville	Public Library	Gail Thompson	5,582
Seattle	....do	Judson T. Jennings	263,569
Spokane	....do	George W. Fuller	68,118
Tacoma	....do	John B. Kaiser	84,191
Walla Walla	Free Public Library	Ellen G. Smith	12,000
WEST VIRGINIA.			
Charleston	State Department Archives and History.	Ethel Green	52,516
Do	State Law Library	L. O. Wilson	19,000
Huntington	Public Library	Miss Lewis Harvey	15,370
Parkersburg	Carnegie Library	Anna E. Taylor and Ida M. Peters.	21,000
Wheeling	Public Library	Etta M. Roberts	35,205
WISCONSIN.			
Antigo	Free Public Library	Mrs. Jessie W. Luther	10,188
Appleton	....do	Agnes L. Dwight	13,101
Ashland	Vaughn Library	Cecile M. Fennelly	7,665
Baraboo	Public Library	Kate M. Potter	10,122
Beaver Dam	Williams Free Library	Hattie A. Doolittle	9,640
Beloit	Public Library	Nellie B. McAlpine	16,282
Berlin	....do	Margaret Biggert	5,924
Chippewa Falls	....do	Marion E. Bryant	8,777
Columbus	Free Public Library	Nellie A. Loomis	5,362
Darlington	Public Library	Hattie B. Greene	5,782
DePere	....do	Helen S. Mathews	6,985
Eau Claire	....do	Laura M. Olsen	24,805
Evansville	Eager Free Public Library	Mae G. Phillips	6,720
Fond du Lac	Public Library	Callie Wieder	20,000
Fort Atkinson	Dwight Foster Public Library	Mrs. J. N. Davis	5,000
Grand Rapids	T. B. Scott Public Library	Edith L. Rablin	9,492
Green Bay	Kellogg Public Library	Deborah B. Martin	27,000
Hayward	Carnegie Free Library	Harriette H. Withrow	4,000
Hudson	Public Library	Lucille C. Menkey	5,738
Janesville	....do	Mary A. Egan	18,751
Kaukauna	Free Public Library	Lillian E. Bell	5,743
Kenosha	Gilbert M. Simmons Library	Cora M. Frantz	32,000
Kilbourn	Public Library	Lillian F. Ramsay	5,000
La Crosse	....do	Lilly M. E. Borresen	24,128
Lake Geneva	Lake Geneva Public Library	Gertrude J. Noyes	66,000
Madison	Free Library	Mary A. Smith	36,489
Do	State Library	Gilson G. Glasier	57,247
Manitowoc	Public Library	Martha E. Pond	12,241
Marinette	Stephenson Public Library	Gladys May Andrews	14,748
Marshfield	Free Library	Caroline C. Shaw	7,237
Menasha	Elisha D. Smith Library	Lucy L. Pleasants	10,520
Menomonie	Tainter Memorial Free Library	Mrs. Essie Nickerson	13,226
Merrill	T. B. Scott Library	Winnefred Bailey	9,198
Milwaukee	Public Library	Charles E. McLenegan	297,195
Mineral Point	....do	Margaret A. Crawford	5,365
Monroe	Arabet Ludlow Memorial Library.	Katherine Smock	10,392

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XX.—Librarians of Public and Society Libraries—Continued.

Location.	Name of library.	Librarian.	Number bound volumes.
WISCONSIN—continued.			
Neenah	Public Library	Ida B. Kellogg	13,354
Oconomowoc	Free Public Library	Lillian E. Humphrey	5,640
Oconto	Farnsworth Public Library	Malvina G. Clausen	7,226
Oshkosh	Public Library	Julia Rupp	31,794
Portage	Free Public Library	Mary E. Porter	11,000
Racine	do	Mary J. Calkins	29,726
Rhinelander	do	Jessie W. Bingham	6,778
Rice Lake	Public Library	Odile M. Demers	6,000
Ripon	do	Blanche Thompson	7,373
St. Francis	Salzmann Library	Rev. Dr. A. C. Breio	15,000
Sheboygan	Public Library	Bertha Marx	15,706
Sparta	Free Library	Jennie Scouten	8,809
Stanley	Delos R. Moon Library	Lucille Nichols	4,031
Stevens Point	Public Library	Mary Dunegan	6,611
Superior	do	Blanch L. Unterkircher	29,400
Washburn	Free Public Library	Mrs. May M. Greenwood	5,294
Watertown	do	Georgia Lutkemeyer	6,946
Waukesha	do	Fannie L. Ells	6,702
Waupun	Public Library	Clara L. Lindsley	7,688
Wausau	do	Cora I. Lansing	10,563
Wauwatosa	do	Grace E. Loveland	7,241
Whitewater	do	Ella A. Hamilton	8,075
WYOMING.			
Cheyenne	Laramie County Public Library	Luella Moore	16,000
Do	State Library	Frances A. Davis	35,000
Evanston	Uinta County Public Library	Marguerite Cameron	5,000
Laramie	Carnegie Public Library	William S. Ingham	12,500

XXI.—Directors of Library Schools.

Location.	Name of institution.	Director.
Los Angeles, Cal	Public Library Training School	Theodora R. Brewitt, principal.
Riverside, Cal	Riverside Library School	Joseph F. Daniels, director.
Sacramento, Cal	California State Library School	James L. Gillis, director.
Atlanta, Ga	Library Training School (Carnegie Library)	Tommie Dora Barker, director.
Urbana, Ill	University of Illinois Library School	Phineas L. Windsor, director.
Boston, Mass	Simmons College, School of Library Science	June R. Donnelly, director.
Albany, N. Y	New York State Library School	James I. Wyer, director.
Brooklyn, N. Y	Pratt Institute School of Library Science	Edward F. Stevens, director.
New York, N. Y	Library School of the New York Public Library	Azariah S. Root, principal.
Syracuse, N. Y	Syracuse University Library School	E. E. Sperry, director.
Cleveland, Ohio	Western Reserve Library School (Western Reserve University).	Alice S. Tyler, director.
Do	Cleveland Public Library	
Pittsburgh, Pa	Training School for Children's Librarians (Carnegie Library), Schenley Park.	Sarah C. N. Bogle, director.
Madison, Wis	Wisconsin Library School (Wisconsin Free Library Commission and the University of Wisconsin).	Matthew S. Dudgeon, director.

XXII.—Educational Boards and Foundations.

Name of board.	President.	Secretary.	Meeting.
Anna T. Jeanes Foundation.	J. H. Dillard, Charlottesville, Va.	Robert R. Moton, Tuskegee Institute, Ala.	New York, N. Y., January 27, 1917.
Baron de Hirsch Fund	E. S. Benjamin	Max J. Kohler, 80 Maiden Lane, New York, N. Y.	New York, N. Y., second Sunday in January.
Carnegie Corporation of New York.	Andrew Carnegie, 576 Fifth Ave., New York, N. Y.	James Bertram, 576 Fifth Ave., New York, N. Y.	New York, N. Y., November 16, 1916.

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XXII.—Educational Boards and Foundations—Continued.

Name of board.	President.	Secretary.	Meeting.
Carnegie Foundation for the Advancement of Teaching.	H. S. Pritchett, 576 Fifth Ave., New York, N. Y.	Clyde Furst, 576 Fifth Ave., New York, N. Y.	New York, N. Y., November 16, 1917.
General Education Board.	F. T. Gates, chairman, 61 Broadway, New York, N. Y.	Wallace Buttrick, 61 Broadway, New York, N. Y.	New York, N. Y., October 26, 1916.
John F. Slater Fund.....	William A. Slater, 1731 I St., Washington, D. C.	James H. Dillard, Charlottesville, Va.	Washington, D. C.
Kahn Foundation for the Foreign Travel of American Teachers.	E. D. Adams, 71 Broadway, New York, N. Y.	Frank D. Fackenthal, Columbia University, New York, N. Y.	
Phelps-Stokes Fund.....	I. N. Phelps Stokes, chairman, 100 William St., New York, N. Y.	Anson Phelps Stokes, Yale University, New Haven, Conn.	New York, N. Y., 3d Wednesday in April and November.
Rockefeller Foundation...	John D. Rockefeller, jr., 26 Broadway, New York, N. Y.	Jerome D. Greene, 61 Broadway, New York, N. Y.	
Russell Sage Foundation..	Mrs. Russell Sage, 604 Fifth Ave., New York, N. Y.	John M. Glenn, 130 East 22d St., New York, N. Y.	Monthly, October to May, inclusive.
Southern Education Board.	F. R. Chambers, New York, N. Y.	A. P. Bourland, 508 McLachlen Bldg., Washington, D. C.	

XXIII.—Church Educational Boards and Societies.

Name of board.	President.	Secretary.
Council of Church Boards of Education in the United States of America.	Henry H. Sweets, Room 410, Urban Bldg., Louisville, Ky.	Ralph D. Kyle, 6240 Kimbark Ave., Chicago, Ill.
American Baptist Education Society.....	E. D. Burton, University of Chicago, Chicago, Ill.	Frank W. Padelford, 710 Ford Bldg., Boston, Mass.
American Christian Convention, Educational Board.	W. G. Sargent, Providence, R. I.	Hugh A. Smith, West Milton, Ohio.
American Unitarian Association, Committee on Education.	.....	
Congregational Education Society.....	C. F. Swift, Fall River, Mass.	Frank M. Sheldon, 14 Beacon St., Boston, Mass.
Disciples of Christ, Board of Education.....	R. H. Crossfield, Lexington, Ky.	G. D. Edward, Columbia Mo.
Evangelical Lutheran Church, Board of Education.	M. Rhodes, 5070 Waterman Ave., St. Louis, Mo.	Charles J. Bauslin, Harrisburg, Pa.
Methodist Episcopal Church, Board of Education.	William F. McDowell, Washington, D. C.	A. W. Harris, 150 Fifth Ave., New York, N. Y.
Methodist Episcopal Church, South, Board of Education.	E. E. Hoss, Muskogee, Okla.	Stonewall Anderson, 810 Broadway, Nashville, Tenn.
National Baptist Convention, Educational Board.	T. J. Searcy, 385 South Cynthia Place, Nashville, Tenn.	S. E. Griggs, Memphis, Tenn.
Northern Baptist Convention, Board of Education.	E. D. Burton, chairman, University of Chicago, Chicago, Ill.	Frank W. Padelford, 710 Ford Bldg., Boston, Mass.
Presbyterian Church in the United States of America, Board of Education.	Charles Wadsworth, jr., 5854 Overbrook Ave., Philadelphia, Pa.	Joseph W. Cochran, 511 Witherspoon Bldg., Philadelphia, Pa.
Presbyterian Church in the United States of America, College Board.	Edwin A. McAlpin, jr., Madison, N. J.	Robert Mackenzie, 156 Fifth Ave., New York, N. Y.
Presbyterian Church in the United States (Southern), Executive Committee of Education.	James Quarles, Room 410, Urban Bldg., Louisville, Ky.	Henry H. Sweets, Room 410, Urban Bldg., Louisville, Ky.
Protestant Episcopal Church, General Board of Religious Education.	Daniel S. Tuttle, 74 Vandeventer Place, St. Louis, Mo.	William E. Gardner, 289 Fourth Ave., New York, N. Y.
Reformed Church in America, Board of Education.	Elias W. Thompson, Hastings-on-Hudson, N. Y.	John G. Gebhard, Mount Vernon, N. Y.
Reformed Episcopal Church, Committee on Education and Publication.	.....	
Society of Friends, 5-years' meeting, Board of Education.	Robert L. Kelly, Richmond, Ind.	Seth K. Gifford, Providence, R. I.
Society of Friends, General Conference, Committee on Education.	Bird T. Baldwin, Swarthmore, Pa.	Susan W. Janney, Swarthmore, Pa.
United Presbyterian Church, Board of Education.	David F. Matchett, County Bldg., Chicago, Ill.	Ralph D. Kyle, 6240 Kimbark Ave., Chicago, Ill.

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XXIV.—Superintendents of Catholic Parochial Schools.

[Archdioceses are indicated by an asterisk (*).]

Diocese or archdiocese.	Name and title of supervising officer.	Address.
Albany, N. Y.	Rev. Joseph A. Dunney, S. T. L., inspector of schools.	30 North Main Ave., Albany, N. Y.
Baker City, Oreg.	Rev. Hugh J. Marshall, diocesan inspector of schools.	Jordan Valley, Oreg.
*Baltimore, Md.	Rev. Lawrence A. Brown, superintendent (Baltimore City).	31 North Fulton Ave., Baltimore, Md.
*Boston, Mass.	Rev. Augustine F. Hickey, S. T. L., supervisor of schools.	75 Union Park St., Boston, Mass.
Brooklyn, N. Y.	Rev. Joseph V. S. McClancy, inspector of schools.	749 Linwood St., Brooklyn, N. Y.
Buffalo, N. Y.	Rev. Edmund F. Gibbons, superintendent of parochial schools.	Attica, N. Y.
Cleveland, Ohio.	Rev. William A. Kane, diocesan superintendent of parochial schools.	1007 Superior Ave., NE., Cleveland, Ohio.
Columbus, Ohio.	Rev. John P. Curran, superintendent of schools.	150 East First Ave., Columbus, Ohio.
Crookston, Minn.	Rev. Hugo Tell, O. S. B., diocesan superintendent of schools.	Ogema, Minn.
Dallas, Tex.	Rev. L. J. Harrington, school examiner.	137 Marsalis St., Dallas, Tex.
Erie, Pa.	Rev. John M. Gannon, D. D., D. C. L., superintendent of schools.	Cambridge Springs, Pa.
Fall River, Mass.	Rev. Francis J. Bradley, D. D., diocesan school visitor.	274 Second St., Fall River, Mass.
	Rev. L. Damase Robert, diocesan school visitor.	529 Eastern Ave., Fall River, Mass.
Fargo, N. Dak.	Very Rev. John Baker, V. G., inspector of schools.	Valley City, N. Dak.
Fort Wayne, Ind.	Rev. A. E. Lafontaine, superintendent of schools.	1140 Clinton St., Fort Wayne, Ind.
Galveston, Tex.	Rev. J. B. O'Leary, diocesan director of schools.	Bay City, Tex.
Hartford, Conn.	Rev. W. J. Fitzgerald, S. T. L., diocesan supervisor of schools.	340 Collins St., Hartford, Conn.
Little Rock, Ark.	Rev. Thomas V. Tobin, superintendent.	Cathedral, Little Rock, Ark.
*New Orleans, La.	Rev. L. J. Kavanagh, superintendent.	2432 Napoleon Ave., New Orleans, La.
*New York, N. Y.	Rev. Joseph F. Smith, superintendent of schools.	328 West 14th St., New York, N. Y.
	Rev. Michael J. Larkin, S. T. B., superintendent of schools.	308 East 37th St., New York, N. Y.
Newark, N. J.	Rev. John A. Dillon, superintendent of schools.	91 Washington St., Newark, N. J.
*Oregon City, Oreg.	Rev. Edwin V. O'Hara, diocesan superintendent of schools.	62 North 16th St., Portland, Oreg.
*Philadelphia, Pa.	Rev. John E. Flood, superintendent of parochial schools.	242 South 20th St., Philadelphia, Pa.
	Rev. William P. McNally, assistant superintendent of parochial schools.	Twenty-ninth and Dickinson Sts., Philadelphia, Pa.
Pittsburgh, Pa.	Rev. H. C. Boyle, superintendent of schools.	136 North Craig St., Pittsburgh, Pa.
*St. Louis, Mo.	Rev. A. V. Garthoeffner, superintendent of schools.	2122 South 12th St., St. Louis, Mo.
*San Francisco, Cal.	Rev. Ralph Hunt, S. T. L., superintendent of schools.	1200 Florida St., San Francisco, Cal.
Springfield, Mass.	Rev. John F. Conlin, P. R., diocesan school visitor.	Chicopee, Mass.
	Rev. P. F. Doyle, assistant diocesan school visitor.	395 Chestnut St., Springfield, Mass.
Trenton, N. J.	Rev. William J. McConnell, superintendent of parochial schools.	Belmar, N. J.

XXV.—Jewish Educational Organizations.

NATIONAL.

Name.	Presiding officer.	Secretary.
Central Conference of American Rabbis, Religious Education Committee.	Moses J. Gries, president, Cleveland, Ohio.	Joseph S. Kornfeld, Columbus, Ohio.
Council of Jewish Women, Education Committee.	Mrs. Enoch Rauh, president, 5837 Bartlett St., Pittsburgh, Pa.	Rita Stein, 934 Mellon St.
Educational League for the Higher Education of Orphans.	Martin A. Marks, president, 5932 Broadway Ave., Cleveland, Ohio.	Eugene E. Wolf, 336 Engineers Bldg., Cleveland, Ohio.
Jewish Chautauqua Society.	Abram I. Elkus, 111 Broadway, New York, N. Y.	Jeannette M. Goldberg, Jefferson, Tex.
Union of American Hebrew Congregations, Board of Synagogue and School Extension.	J. Walter Freiberg, 216 East Front St., Cincinnati, Ohio.	Lipman Levy, Secretary of Union, Fourth National Bank Bldg., Cincinnati, Ohio.

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XXV.—Jewish Educational Organizations—Continued.

LOCAL.

Name.	Address.	Secretary.
Hebrew Education Society of Baltimore City.	Baltimore, Md.	Hugo Steiner, Law Bldg.
Bureau of Education of the Jewish Community of New York City.	New York, N. Y.	Henrietta Szold, 528 West 123d St.
Educational Alliance	do	Bernard M. L. Ernst, 31 Liberty St.
Hebrew Education Society	Newark, N. J.	Leon A. Kohn, 19 Seymour Ave.
Hebrew Education Society of Philadelphia.	Philadelphia, Pa.	Bernard Harris, 506 Commonwealth Trust Bldg.
Jewish Educational Alliance	St. Louis, Mo.	Oscar Leonard, 901 Carr St.
Jewish Educational League	Toledo, Ohio.	Sigmond Sanger, 1007 Nicholas Bldg.

XXVI.—International Associations of Education.[1]

Association for the International Exchange of Students. Secretary, Henry W. Crees, Caxton House, Westminster, London, England.

Bureau International de Fédérations d'Instituteurs. President, M. Mieras, jr.; secretary, P. Otto, Bloemendaal, Holland.

Chinese Education Association. The Commercial Press, Shanghai, China.

Corda Fratres. International Federation of Students. Central committee. President, John Mez, 116 South Michigan Ave., Chicago, Ill.; secretary, M. A. Munoz, San Juan, Porto Rico.

International Academy of Sciences, Arts, and Letters: Thomas G. Lewis, 408–409 Commercial National Bank Bldg., Washington, D. C.; Francis C. Nicholas, 15 Gramercy Park, New York, N. Y.

International Association of Academies. Secretary, Carl Salemann, Imperial Academy of Sciences, Petrograd, Russia.

International Child Welfare League. President, Mrs. Walston Hill Brown, 117 East 21st St., New York, N. Y.; general secretary, George L. Wheelock, 203 West 101st St., New York, N. Y.

International Commission on the Teaching of Mathematics. President, G. Klein, Göttingen; general secretary, H. Fehr, 110, Florissant, Geneva, Switzerland.

International Congress on School Hygiene. President, Albert Mathieu, Paris, France.

International Federation for the Development of Drawing and Art Teaching. Address: Léon Genoud, Fribourg, Switzerland.

International Kindergarten Union. President, Catharine R. Watkins, 1720 Oregon Ave., Washington, D. C.; secretary, May Murray, Springfield, Mass. Next meeting: Boston, Mass., spring, 1917.

International Moral Education Congress. Permanent commission. Address: M. Spiller, South Hill Park, 63, London, N. W., England.

International Sunday School Association. President, E. K. Warren, Three Oaks, Mich.; secretary, Marion Lawrance, 1416 Mallers Bldg., Chicago, Ill. Next meeting: New York, N. Y., June, 1918.

International University Union. President, James G. Rodger, Shanghai, China; secretary, William Hart Dexter, Washington, D. C.

World's Student Christian Federation. President, Dr. Karl Fries, Stockholm, Sweden; secretary, John R. Mott, 124 East 28th St., New York, N. Y.

XXVII.—American Educational Associations.

The following list shows, first, the name of the association; second, the name and address of the president; third, the name and address of the secretary; fourth, the place and date of the next meeting.

1.—*National and sectional.*

Alumni Association of American Rhodes Scholars: W. W. Thayer, Concord, N. H.; Frank Aydelotte, Massachusetts Institute of Technology, Boston, Mass.

American Association for the Advancement of Agricultural Teaching: Walter H. French, East Lansing, Mich.; C. H. Lane, Department of Agriculture, Washington, D. C.

American Association for the Advancement of Science, Section L: Vice president, Leonard P. Ayres, Russell Sage Foundation, New York, N. Y.; S. A. Courtis, 82 Eliot St., Detroit, Mich.; New York, N. Y., December 26–30, 1916.

[1] Because of the European war no reports have been received during the past year from many international associations.

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American Association of Agricultural College Editors: J. E. McClintock, Ohio State University, Columbus, Ohio; B. E. Powell, University of Illinois, Urbana, Ill.

American Association of Collegiate Registrars: Frank A. Dicky, Columbia University, New York, N. Y.; Ezra L. Gillis, State University of Kentucky, Lexington, Ky.

American Association of Farmers' Institute Workers: Wesley Webb, Dover, Del.; L. R. Taft, Lansing, Mich.

American Association of Teachers of Journalism: James M. Lee, New York University, New York, N. Y.; Carl H. Getz, Ohio State University, Columbus, Ohio; Baton Rouge, La., December, 1916.

American Association of University Professors: John H. Wigmore, Northwestern University, Chicago, Ill.; H. W. Tyler, 491 Boylston St., Boston, Mass.; New York, N. Y., December 29–30, 1916.

American Association to Promote the Teaching of Speech to the Deaf: Edmund Lyon, 1441 East Ave., Rochester, N. Y.; Z. F. Westervelt, 1545 St. Paul St., Rochester, N. Y.

American Bar Association, Section of Legal Education: Hampton L. Carson, 1524 Chestnut St., Philadelphia, Pa.; Charles M. Hepburn, Indiana University School of Law, Bloomington, Ind.

American Federation of Arts: Robert W. de Forest, 30 Broad St., New York, N. Y.; Leila Mechlin, 1741 New York Ave., Washington, D. C.; Washington, D. C., May 16–18, 1917.

American Federation of Teachers: Charles B. Stillman, 1620 Lake Ave., Wilmette, Ill.; Margaret Snodgrass, 1061 Dakin St., Chicago, Ill.

American Federation of the Teachers of the Mathematical and Natural Sciences: C. Riborg Mann, 576 Fifth Ave., New York, N. Y.; William A. Hedrick, Central High School, Washington, D. C.; New York, N. Y., with the American Association for the Advancement of Science.

American Home Economics Association: Catharine J. MacKay, Iowa State College, Ames, Iowa; Mrs. Alice P. Norton, 1326 East 58th St., Chicago, Ill.

American Institute of Dental Teachers: S. W. Bowles, 1616 I St., Washington, D. C.; A. Hoffman, 529 Franklin St., Buffalo, N. Y.; Philadelphia, Pa., January, 1917.

American Institute of Instruction: Carlos B. Ellis, Springfield, Mass.; H. W. Holmes, Harvard University, Cambridge, Mass.

American Medical Association, Council on Medical Education: Chairman, Arthur D. Bevan, 122 South Michigan Ave., Chicago, Ill.; N. P. Colwell, 535 North Dearborn St., Chicago, Ill.; Chicago, Ill., February 5–6, 1917.

American Nature-Study Society: Liberty Hyde Bailey, Ithaca, N. Y.; Elliot R. Downing, University of Chicago, Chicago, Ill.; New York, N. Y., December 30–31, 1916.

American Open-Air School Association: Allen G. Rice, 42 Maple St., Springfield, Mass.; W. W. Roach, 2905 Columbia Ave., Philadelphia, Pa.

American Physical Education Association: E. H. Arnold, New Haven, Conn.; James H. McCurdy, International Y. M. C. A. College, Springfield, Mass.; Pittsburgh, Pa., March, 1917.

American Posture League: Jessie H. Bancroft, 1 Madison Ave., New York, N. Y.; Henry L. Taylor, 1 Madison Ave., New York, N. Y.; New York, N. Y., March, 1917.

American School Hygiene Association: L. N. Hines, Crawfordsville, Ind.; William A. Howe, State Education Building, Albany, N. Y.

American School Peace League: Randall J. Condon, Cincinnati, Ohio; Mrs. Fannie F. Andrews, 405 Marlborough St., Boston, Mass.; July, 1917, with the National Education Association.

American Society for Extension of University Teaching: Henry La Barre Jayne, 505 Chestnut St., Philadelphia, Pa.; William K. Huff, 730 Witherspoon Building, Philadelphia, Pa.; Philadelphia, Pa.

Associated College Newspaper Publishers: Morris P. Schaffer, Columbia University, New York, N. Y.; Herbert C. Fowler, Williams College, Williamstown, Mass.; New York, N. Y., September, 1916.

Associated Harvard Clubs: F. W. Buckingham, 821 Corn Exchange Bank Building, Chicago, Ill.; E. M. Grossman, 520 Rialto Building, St. Louis, Mo.; Buffalo, N. Y., May or June, 1917.

Association of American Agricultural Colleges and Experiment Stations: K. L. Butterfield, Massachusetts Agricultural College, Amherst, Mass.; J. L. Hills, Vermont Experiment Station, Burlington, Vt.

Association of American Colleges: Henry C. King, Oberlin, Ohio; R. Watson Cooper, Fayette, Iowa; Chicago, Ill., January 11–13, 1917.

Association of American Instructors of the Deaf: Edward M. Gallaudet, Hartford, Conn.; Frank M. Driggs, Ogden, Utah; Hartford, Conn., July 25–30, 1917.

Association of American Law Schools: Walter W. Cook, Yale University Law School, New Haven, Conn.; Eugene A. Gilmore, University of Wisconsin Law School, Madison, Wis.; Chicago, Ill., December 28–30, 1916.

Association of American Library Schools: June R. Donnelley, Simmons College Library School, Boston, Mass.; Florence R. Curtis, University of Illinois Library School, Urbana, Ill.; Chicago, Ill., Christmas week, 1916.

Association of American Medical Colleges: John L. Heffron, Syracuse, N. Y.; Fred. C. Zapffe, 3431 Lexington St., Chicago, Ill.; Chicago, Ill., February, 1917.

Association of American Universities: Representative of Clark University, Worcester, Mass.; Herman V. Ames, University of Pennsylvania, Philadelphia, Pa.

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Association of Biblical Instructors in American Colleges and Secondary Schools: C. F. Kent, Yale University, New Haven, Conn.; Raymond C. Knox, Columbia University, New York, N. Y.; December, 1916.

Association of Business Officers of the State Universities and Colleges of the Middle West: George H. Hayes, University of Minnesota, Minneapolis, Minn.; M. E. McCaffrey, University of Wisconsin, Madison, Wis.; Minneapolis, Minn., April or May, 1917.

Association of City Training School Teachers: J. F. Hosic, City Normal College, Chicago, Ill.; Blanche L. MacCarthy, 2052 Linden Ave., Baltimore, Md.

Association of Colleges and Normal and Secondary Schools of the Upper Ohio Valley: John F. Bowers, McKeesport, Pa.; G. P. Eckels, George Westinghouse High School, Pittsburgh, Pa.; Pittsburgh, Pa., December 1–2, 1916.

Association of Colleges and Preparatory Schools of the Middle States and Maryland: Katharine Puncheon, Philadelphia High School for Girls, Philadelphia, Pa.; George W. McClelland, University of Pennsylvania, Philadelphia, Pa.; Baltimore, Md., December 1–2, 1916.

Association of Colleges and Secondary Schools of the Southern States: William A. Webb, Randolph-Macon Woman's College, Lynchburg, Va.; Walter Hullihen, University of the South, Sewanee, Tenn.; probably New Orleans, La., November, 1917.

Association of Colleges for Negro Youth: George R. Hovey, Virginia Union University, Richmond, Va.; George E. Haynes, Fisk University, Nashville, Tenn.

Association of Collegiate Alumnæ: Caroline L. Humphrey, 23 Maple Ave., Cambridge, Mass.; Mrs. Gertrude S. Martin, 934 Stewart Ave., Ithaca, N. Y.; Washington, D. C., April 9–14, 1917.

Association of Cosmopolitan Clubs: George W. Nasmyth, 1131 Massachusetts Ave., Cambridge, Mass.; Homer Browning, 109 Parker St., Ithaca, N. Y..

Association of Directors of Physical Education for Women: Florence Gilman, Northampton, Mass.; Elizabeth A. Wright, Radcliffe College, Cambridge, Mass.; Ashland, Va., April 27–28, 1917.

Association of History Teachers of the Middle States and Maryland: Jessie C. Evans, William Penn High School, Philadelphia, Pa.; Livingston R. Schuyler, College of the City of New York, New York, N. Y.

Association of Modern Language Teachers of the Central West and South: A. G. Canfield, University of Michigan, Ann Arbor, Mich.; C. H. Handschin, Oxford, Ohio.

Association of Presidents and Past Presidents of State and National Music Teachers' Associations: Liborius Semmann, 752½ 38th St., Milwaukee, Wis.; Charles S. Skilton, Lawrence, Kans.; Chicago, Ill., January 25–26, 1917.

Association of Schools, Colleges, and Seminaries of the Reformed Church: Henry H. Apple, Lancaster, Pa.; G. L. Omwake, Collegeville, Pa.

Association of Teachers of Mathematics in New England: Julian L. Coolidge, Harvard University, Cambridge, Mass.; H. D. Gaylord, 104 Hemenway St., Boston, Mass.; Boston, Mass., December 9, 1916.

Association of Teachers of Mathematics in the Middle States and Maryland: Jonathan T. Rorer, William Penn High School, Philadelphia, Pa.; F. Eugene Seymour, Normal School, Trenton, N. J.; Baltimore, Md., November 25 or December 2, 1916.

Association of Urban Universities: Samuel B. McCormick, Pittsburgh University, Pittsburgh, Pa.; Frederick B. Robinson, College of the City of New York, New York, N. Y.; November or December, 1917.

Catholic Educational Association: Thomas J. Shahan, Catholic University of America, Washington, D. C.; Francis W. Howard, 1651 East Main St., Columbus, Ohio.

Central Association of Science and Mathematics Teachers: Herbert R. Smith, 145 West Park Ave., Chicago, Ill.; A. W. Cavanaugh, Lewis Institute, Chicago, Ill.; Chicago, Ill., December 1–2, 1916.

Central Commercial Teachers' Association: Lena A. Vogt, Cedar Rapids, Iowa; Lillian C. Fowler, Minnesota School of Business, Minneapolis, Minn.; Des Moines, Iowa.

Classical Association of New England: Harry de Forest Smith, Amherst College, Amherst, Mass.; George E. Howes, Williams College, Williamstown, Mass.; probably April, 1917.

Classical Association of the Atlantic States: Charles E. Bennett, Cornell University, Ithaca, N. Y.; Charles Knapp, Barnard College, New York, N. Y.; Pittsburgh, Pa., April, 1917.

Classical Association of the Middle West and South: John A. Scott, Northwestern University, Evanston, Ill.; Louis E. Lord, Oberlin, Ohio; Louisville, Ky., April, 1917.

Classical Association of the Pacific States, Northern Section: Frank C. Taylor, Pacific University, Forest Grove, Oreg.; Julianne A. Roller, 1145 Ivon St., Portland, Oreg.; Portland, Oreg., probably December 27–28, 1916.

College Art Association of America: John Pickard, Columbia, Mo.; Charles F. Kelley, Ohio State University, Columbus, Ohio; probably Cleveland, Ohio, April, 1917.

College Conference on English in the Central Atlantic States: James W. Bright, Johns Hopkins University, Baltimore, Md.; Edgar Morris, Syracuse University, Syracuse, N. Y.; December 2, 1916.

College Entrance Examination Board: B. S. Hurlbut, Harvard University, Cambridge, Mass.; Thomas S. Fiske, Columbia University, New York, N. Y.; New York, N. Y., November 4, 1916.

College Teachers of Education of the Middle West: President, G. M. Wilson, Ames, Iowa.

Commission on Accredited Schools of the Association of Colleges and Secondary Schools of the Southern States: Joseph S. Stewart, Athens, Ga.; N. W. Walker, Chapel Hill, N. C.; Durham, N. C., November 15–18, 1916.

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Committee on Friendly Relations Among Foreign Students: Cleveland H. Dodge, 124 East 28th St., New York, N. Y.; Charles D. Hurrey, 124 East 28th St., New York, N. Y.

Conference of Church Workers in State Universities: Willard Lampe, University of Pennsylvania Y. M. C. A., Philadelphia, Pa.; N. C. Fetter, jr., 309 North Division St., Ann Arbor, Mich.; Chicago, Ill., January, 1917.

Conference of Colleges of the Interior: Ozora S. Davis, Chicago Theological Seminary, Chicago, Ill.; H. E. Griffith, Knox College, Galesburg, Ill.; Northfield, Minn., October 12-13, 1916.

Conference of Superintendents and Principals of American Schools for the Deaf: J. W. Jones, School for the Deaf, Columbus, Ohio; Frank M. Driggs, Ogden, Utah; probably Hartford, Conn., June 25-30, 1917.

Department Store Education Association: Anne Morgan; Mrs. Robert G. Mead, 105 West 40th St., New York, N. Y.

Drama League of America: Percival Chubb, 4533 Westminster Place, St. Louis, Mo.; Mrs. Norman K. Anderson, 565 Willow St., Winnetka, Ill.; Pittsburgh, Pa.

Eastern Arts Association: Royal B. Farnum, Education Building, Albany, N. Y.; Fred P. Reagle, Board of Education, Montclair, N. J.; April, 1917.

Eastern Association of Physics Teachers: Clarence M. Hall, Springfield High School, Springfield, Mass.; Alfred M. Butler, 182 Park St., West Roxbury, Mass.

Eastern Commercial Teachers' Association: G. P. Eckles, Westinghouse High School, Pittsburgh, Pa.; D. A. McMillin, Central High School, Newark, N. J.; Baltimore, Md., April 5-7, 1917.

Educational Association of the Methodist Episcopal Church: A. W. Harris, 150 Fifth Ave., New York, N. Y.; Robert J. Trevorrow, Carmel, N. Y.; January, 1917.

Educational Dramatic League: Mrs. August Belmont, 105 West 40th St., New York, N. Y.; Miss Marion A. Turner, 105 West 40th St., New York, N. Y.; New York, N. Y., October, 1916.

Educational Press Association of America: Henry G. Williams, Columbus, Ohio; Julia F. Walker, Indianapolis, Ind.; Kansas City, Mo., week of February 22, 1917.

Educational Secretaries Association: E. L. Wertheim, 318 West 57th St., New York, N. Y.; A. L. Ward, 19 South La Salle St., Chicago, Ill.; Springfield, Mass., May, 1917.

Farmers' Educational Cooperative Union of America: O. P. Ford, McFall, Ala.; Miss Lutie B. Wyatt, 2130 Maine Ave., Birmingham, Ala.

Federation for Child Study: Mrs. Howard S. Gans, 401 West End Ave., New York, N. Y.; Mrs. Thomas Seltzer, 219 West 100th St., New York, N. Y.; New York, N. Y., November 1, 1916.

Head Masters' Association: Edward J. Goodwin, Packer Institute, Brooklyn, N. Y.; Arthur F. Warren, 241 West 77th St., New York, N. Y.; probably New York, N. Y., February, 1917.

Head Mistresses' Association of the East: President, Emma G. Sebring, 559 West End Ave., New York, N. Y.; Miriam A. Bytel, St. Marys' School, Garden City, N. Y.; New York, N. Y., November 10-11, 1916.

Head Mistresses' Association of the Middle West: Gertrude Angell, Buffalo, N. Y.; Grace L. Jones, Columbus School for Girls, Columbus, Ohio; January, 1917.

Inland Empire Association of English Teachers: Selden Smyser, North Yakima, Wash.; Gertrude Shottenfels, 1516 Hays St., Boise, Idaho; Spokane, Wash., April, 1917.

Inland Empire Teachers' Association: Henry Suzzallo, University of Washington, Seattle, Wash.; J. A. Burke, Logan School, Spokane, Wash.

Lake Mohonk Conference of Friends of the Indian and other Dependent Peoples: Presidency vacant; H. C. Phillips, Mohonk Lake, N. Y.; Mohonk Lake, N. Y., October 18-20, 1916.

Land Grant College Engineering Association: W. H. S. Demarest, Rutgers College, New Brunswick, N. J.; A. A. Potter, Manhattan, Kans.; Springfield, Mass., October 5, 1917.

League of Teachers' Associations: Frances E. Harden, 1543 Sherwin Ave., Chicago, Ill.; Julia Walsh, La Salle, Ill.; July, 1917, with the National Education Association.

Missionary Education Movement of the United States and Canada, 156 Fifth Ave., New York, N. Y.: chairman, Fred P. Haggard; general secretary, Harry W. Hicks.

Mississippi Valley Historical Association, Teachers' Section: A. O. Thomas, State Home, Lincoln, Nebr.; Howard C. Hill, State Normal School, Milwaukee, Wis.; Spring, 1917.

Missouri Valley Commercial Teachers' Association: L. E. Gifford, St. Joseph, Mo.; Wera G. Nathan, Central High School, Kansas City, Mo.; Kansas City, Mo., December 1, 1916.

Music Teachers' National Association: J. Lawrence Erb, University of Illinois, Urbana, Ill.; Charles N. Boyd, 4259 Fifth Ave., New York, N. Y.; New York, N. Y., December 27-29, 1916.

National Associated Schools of Scientific Business: W. N. Ferris, Big Rapids, Mich.; Sherwin Cody, 189 West Madison St., Chicago, Ill.

National Association for the Study and Education of Exceptional Children: Ira S. Wile, 230 West 97th St., New York, N. Y.; Waldemar H. Groszmann, Plainfield, N. J.

National Association of Academic Teachers of Public Speaking: James A. Winans, Cornell University, Ithaca, N. Y.; Mrs. Perle S. Kingsley, University of Denver, Denver, Colo.; New York, N. Y., November 30 to December 2, 1916.

National Association of Accredited Commercial Schools: B. F. Williams, Des Moines, Iowa; H. E. V. Porter, Jamestown, N. Y.; December, 1916.

National Association of Corporation Schools: Herbert J. Tily, Strawbridge & Clothier, Philadelphia, Pa.; F. C. Henderschott, Irving Place and 15th St., New York, N. Y.; Buffalo, N. Y., June, 1917.

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National Association of Dental Faculties: H. L. Banghof, Milwaukee, Wis.; Charles C. Allen, Kansas City, Mo.

National Association of Directors of Educational Research: Walter S. Monroe, State Normal School, Emporia, Kans.; George Melcher, Kansas City, Mo.; Kansas City, Mo., with the Department of Superintendence, National Education Association.

National Association of Principals of Secondary Schools: B. F. Brown, Lake View High School, Chicago, Ill.; F. M. Hammitt, Mason City, Iowa; Kansas City, Mo., February, 1917.

National Association of School Accounting Officers: William Dick, Board of Public Education, Philadelphia, Pa.; A. L. Cline, Des Moines, Iowa; Pittsburgh, Pa., May, 1917.

National Association of State Supervisors and Inspectors of Rural Schools: N. C. Macdonald, Valley City, N. Dak.

National Association of State Universities in the United States of America: Guy P. Benton, University of Vermont, Burlington, Vt.; F. L. McVey, State University of North Dakota, University, N. Dak.

National Association of Teachers' Agencies: C. J. Albert, 623 South Wabash Ave., Chicago, Ill.; Charles W. Mulford, 353 Fifth Ave., New York, N. Y.; Kansas City, Mo., with the Department of Superintendence, National Education Association.

National Association of Teachers in Colored Schools: W. H. Singleton, Chattanooga, Tenn.; S. K. Floyd, Augusta, Ga.; New Orleans, La., July, 1917.

National Child Labor Committee: Chairman, Felix Adler, 23 Central Park West, New York, N. Y.; Owen R. Lovejoy, 105 East 22d St., New York, N. Y.

National Collegiate Athletic Association: LeBaron R. Briggs, Harvard University, Cambridge, Mass.; Frank W. Nicolson, Wesleyan University, Middletown, Conn.; New York, N. Y., December, 1916.

National Commercial Teachers' Federation: Clay D. Slinker, Des Moines, Iowa; W. H. Gilbert, Marshalltown, Iowa; Chicago, Ill., December 27–31, 1916.

National Committee for Promoting Character Building: William H. Harvey, Monte Ne, Ark.; F. A. Davis, Monte Ne, Ark.; Monte Ne, Ark., Summer, 1917.

National Conference Committee on Standards of Colleges and Secondary Schools: Frederick C. Ferry, Williamstown, Mass.; Frank W. Nicolson, Middletown, Conn.; New York, N. Y., February, 1917.

National Conference of Music Supervisors: President, P. W. Dykema, University of Wisconsin, Madison, Wis.; Grand Rapids, Mich., March 19–23, 1917.

National Conference on Community Centers and Related Problems: Harry A. Lipsky, Board of Education, Chicago, Ill.; John Collier, 70 Fifth Ave., New York, N. Y.

National Conference on the Education of Dependent, Truant, Backward, and Delinquent Children: W. L. Kuser, Eldora, Iowa; H. H. Todd, Flushing, N. Y.; Pittsburgh, Pa., June 4–6, 1917.

National Council of Executive and Administrative Women in Education: Almina George, Hotel Lincoln, Seattle, Wash.; Margaret Jean Calvin, Teachers College, Columbia University, New York, N. Y.; Kansas City, Mo., with Department of Superintendence, National Education Association.

National Council of Geography Teachers: Richard E. Dodge, Teachers College, Columbia University, New York, N. Y.; George J. Miller, Mankato, Minn.

National Council of Primary Teachers: Chairman, Ella Victoria Dobbs, University of Missouri, Columbia, Mo.; Kansas City, Mo., February, 1917, with the Department of Superintendence, National Education Association.

National Council of Teachers of English: Edwin M. Hopkins, University of Kansas, Lawrence, Kans.; James F. Hosic, Chicago Normal College, Chicago, Ill.; New York, N. Y., November 30 to December 2, 1916.

National Education Association: Robert J. Aley, Orono, Me.; D. W. Springer, Ann Arbor, Mich.

National Education Association, Department of Superintendence: John D. Shoop, Department of Education, Chicago, Ill.; Margaret T. Maguire, McCall School, Philadelphia, Pa.; Kansas City, Mo., February 26 to March 3, 1917.

National Education Association, National Council of Education: W. B. Owen, Normal School, Chicago, Ill.; Adelaide S. Baylor, Indianapolis, Ind.; Kansas City, Mo., February 23–28, 1917.

National Educators Conservation Society: Charles L. Bristol, University Heights, New York, N. Y.; Nomer Gray, 299 Broadway, New York, N. Y.

National Federation of College Women: Mrs. William O. Thompson, Columbus, Ohio; Mrs. Roger J. Sterrett, 4612 Welch Place, Los Angeles, Cal.; 1917, with the National Education Association.

National Federation of State Education Associations: Charles S. Foos, Reading, Pa.; E. M. Carter, Columbia, Mo.; Kansas City, Mo., February, 1917, with Department of Superintendence, National Education Association.

National German-American Teachers' Association (Nationaler Deutsch-Amerikanischer Lehrerbund): Leo Stern, 969 2d St., Milwaukee, Wis.; Theodore Charly, 1038 26th St., Milwaukee, Wis.; Pittsburgh, Pa., July, 1917.

National Kindergarten Association: John Dewey, 250 Madison Ave., New York, N. Y.; Bessie Locke, 250 Madison Ave., New York, N. Y.; New York, N. Y., November, 1917.

National League of Compulsory Education Officials: Charles A. McCall, City Hall, Newark, N. J.; T. P. Twiggs, 137 East Grand River, Detroit, Mich.; Chicago, Ill., between November 7 and 15, 1917.

National League of Nursing Education: Sara E. Parsons, Massachusetts General Hospital, Boston, Mass.; Effie J. Taylor, Johns Hopkins Hospital, Baltimore, Md.; Philadelphia, Pa.; May or June, 1917.

National League of Teacher-Mothers: Ella Frances Lynch, Bryn Mawr, Pa.

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National Montessori Promotion Fund: Alfred Loomis, 32 Liberty St., New York, N. Y.; David H. McAlpin Pyle, 120 Broadway, New York, N. Y.; New York, N. Y., September, 1916.

National Shorthand Teachers' Association: Paul Moser, Moser Business College, Chicago, Ill.; Mary E. Cherry, Findlay Business College, Findlay, Ohio; Chicago, Ill., December 27-30, 1916.

National Society for Broader Education: Guy Carlton Lee, Carlisle, Pa.; H. H. Langsdorf, 168 West High St., Carlisle, Pa.; New York, N. Y., January 3, 1917.

National Society for the Promotion of Industrial Education: William C. Redfield, Department of Commerce, Washington, D. C.; Alvin E. Dodd, 140 West 42d St., New York, N. Y.; Indianapolis, Ind., February 21-24, 1917.

National Society for the Study of Education: Charles E. Chadsey, Detroit, Mich.; Guy M. Whipple, Urbana, Ill.; Kansas City, Mo., February, 1917, with the Department of Superintendence, National Education Association.

National Society of College Teachers of Education: Will G. Chambers, University of Pittsburgh, Pittsburgh, Pa.; Guy M. Wilson, Iowa State Agricultural College, Ames, Iowa; Kansas City, Mo., February, 1917, with the Department of Superintendence, National Education Association.

National Speech Arts Association: George C. Williams, Ithaca, N. Y.; Jessie E. Tharp, 1515 Sixth Ave., New Orleans, La.

National Story Tellers League: Richard T. Wyche, 414 West 121st St., New York, N. Y.; Richard M. Hodge, 552 West 118th St., New York, N. Y.

National Vocational Art and Industrial Federation: Huber W. Hurt, Lebanon, Ill.; Mrs. Robert L. McCall, 4714 Washington Boulevard, Chicago, Ill.

National Vocational Guidance Association: Meyer Bloomfield, Vocational Bureau, Boston, Mass.; W. Carson Ryan, jr., Bureau of Education, Washington, D. C.; Philadelphia, Pa., April, 1917.

New England Association of Chemistry Teachers: George A. Cowen, West Roxbury, Mass.; S. W. Hoyt, Belmont, Mass.

New England Association of College Teachers of Education: Stephen S. Colvin, Brown University, Providence, R. I.; S. Monroe Graves, Wellesley Hills, Mass.; Cambridge, Mass., November, 1916.

New England Association of Colleges and Secondary Schools: Alfred E. Stearns, Phillips Academy, Andover, Mass.; Walter B. Jacobs, Brown University, Providence, R. I.; Boston, Mass., November 10-11, 1916.

New England Association of School Superintendents: George L. Farley, Brockton, Mass.; Fred H. Nickerson, Medford, Mass.; Boston, Mass., November, 1916.

New England Association of Teachers of English: Alfred M. Hitchcock, Hartford, Conn.; Frank C. Hersey, Harvard University, Cambridge, Mass.; Springfield, Mass., December 9, 1916.

New England College Entrance Certificate Board: F. G. Wren, Tufts College, Mass.; Frank W. Nicolson, Middletown, Conn.; Boston, Mass., April, 1917.

New England Federation of High School Commercial Teachers: Charles F. Rittenhouse, Simmons College, Boston, Mass.; W. O. Holden, Pawtucket, R. I.; Boston, Mass., November 11, 1916.

New England History Teachers' Association: Margaret McGill, Newtonville, Mass.; Horace Kidger, Technical High School, Newtonville, Mass.; probably Boston, Mass., April, 1917.

New England Modern Language Association: Joseph S. Ford, Phillips Exeter Academy, Exeter, N. H.; Samuel M. Waxman, Boston University, Boston, Mass.; Boston, Mass., May, 1917.

New England Montessori Association: Mrs. Sara B. Hayes, Ashland, Mass.; Anne Howe, 354 Marlboro St., Boston, Mass.; Boston, Mass.

New England Penmanship Association: Raymond G. Laird, Jamaica Plain, Mass.; George L. Hoffacker, 50 Peterboro St., Boston, Mass.; Boston, Mass., January 27, 1917.

North Central Association of Colleges and Secondary Schools: Chester B. Curtis, Central High School, St. Louis, Mo.; Henry E. Brown, Kenilworth, Ill.; St. Louis, Mo., March 22-24, 1917.

North Central Council of State Normal School Presidents: F. A. Cotton, La Crosse, Wis.; J. G. Crabbe, Greeley, Colo.; Kansas City, Mo., February, 1917.

Northwest Association of History, Government, and Economics Teachers: Adella M. Parker, Seattle, Wash.; L. F. Jackson, State College of Washington, Pullman, Wash.

Northwestern Educational Foundation: H. C. Henry, Seattle, Wash.; Stephen B. L. Penrose, Walla Walla, Wash.

Playground and Recreation Association of America: Joseph Lee, 101 Tremont St., Boston, Mass.; Howard S. Braucher, 1 Madison Ave., New York, N. Y.

Presbyterian Educational Association of the South: Henry H. Sweets, 122 South Fourth Ave., Louisville, Ky.; William Dinwiddie, Clarksville, Tenn.; Montreat, N. C.

Religious Education Association: Francis J. McConnell, 964 Logan St., Denver, Colo.; Henry F. Cope, 332 South Michigan Ave., Chicago, Ill.; Boston, Mass., February 27 to March 2, 1917.

School Garden Association of America: V. E. Kilpatrick, 124 West 30th St., New York, N. Y.; E. Ruth Pyrtle, Lincoln, Nebr.; Kansas City, Mo., February, 1917, with the Department of Superintendence, National Education Association.

Société Nationale des Professeurs Français en Amérique: Auguste George, 160 St. Nicholas Ave., New York, N. Y.; Eugène Maloubier, 55 Pierrepont St., Brooklyn, N. Y.; New York, N. Y., November 11, 1916.

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Society for the Promotion of Engineering Education: G. R. Chatburn, University of Nebraska, Lincoln, Nebr.; F. L. Bishop, University of Pittsburgh, Pittsburgh, Pa.; Evanston, Ill., June, 1917.
Society for the Promotion of Training for Public Service: Charles McCarthy, Legislative Reference Library, Madison, Wis.; Edward A. Fitzpatrick, Box 380, Madison, Wis.
Society of Directors of Physical Education in Colleges: C. V. P. Young, Cornell University, Ithaca, N. Y.; Paul C. Phillips, Amherst College, Amherst, Mass.; New York, N. Y., week of December 25, 1916.
Southern Association of College Women: Elizabeth A. Colton, Meredith College, Raleigh, N. C.; Mary L. Harkness, Newcomb College, New Orleans, La.; Washington, D. C., April 10–16, 1917.
Southern Association of State Supervisors of Rural Schools: C. J. Brown, Baton Rouge, La.; John B. Brown, Nashville, Tenn.; with Southern Conference for Education and Industry.
Southern Baptist Education Association: R. T. Vann, Raleigh, N. C.; J. Henry Burnett, Richmond College, Richmond, Va.; Nashville, Tenn., January, 1917.
Southern Conference for Education and Industry: S. G. Gilbreath, Johnson City, Tenn.; A. P. Bourland, 508 McLachlen Building, Washington, D. C.
Southern Educational Council: J. H. Phillips, Birmingham, Ala.; W. K. Tate, Nashville, Tenn.; New Orleans, La.
Southern Industrial Education Association: Seth Shepard, 1447 Massachusetts Ave., Washington, D. C.; Mrs. A. S. Stone, 331 Southern Building, Washington, D. C.; Washington, D. C., November 27, 1916.
Vocational Education Association of the Middle West: George H. Miller, Elmhurst, Ill.; A. G. Bauersfeld, Lane Technical School, Chicago, Ill.; Chicago, Ill., January 18–20, 1917.
Western Association of College Teachers of Education: G. W. Wilson, Ames, Iowa; A. W. Trettien, Drury College, Springfield, Mo.
Western Drawing and Manual Training Association: E. J. Lake, University of Illinois, Urbana, Ill.; Wilson H. Henderson, Extension Division, University of Wisconsin, Milwaukee, Wis.; Lincoln, Nebr., May, 1917.
Women's Educational and Industrial Union: Mary Morton Kehew, 264 Boylston St., Boston, Mass.; Helen N. Henry, 264 Boylston St., Boston, Mass.; Boston, Mass., November 14, 1916.
Women's Intercollegiate Association for Student Government: Ernestine S. Hall, Mount Holyoke College, South Hadley, Mass.; Olive Sheldon, Wellesley, Mass.; South Hadley, Mass., November 16–18, 1916.

2. *State.*

Alabama:
- Alabama Association of History Teachers: George Petrie, Auburn; D. C. Chase, Birmingham; April, 1917.
- Alabama Educational Association: James J. Doster, University; William C. Griggs, Gadsden.
- Alabama English Teachers' Association: C. A. Brown, Birmingham; Claud Howard, Jacksonville; probably Montgomery.
- Alabama State Teachers' Association: J. A. Lawrence, Montgomery; C. J. Calloway, Tuskegee Institute; Mobile, April, 1917.
- Alabama Sunday School Association: C. C. Thach, Auburn; Leon C. Palmer, Montgomery; Montgomery, April, 1917.
- Association of Alabama Colleges: Paul V. Bomar, Marion; James J. Doster, University of Alabama, University; April, 1917.

Arizona:
- Arizona State Teachers' Association: G. H. Madden, Nogales; Sarah M. Whitfield, Phoenix; Tucson, April, 1917.

Arkansas:
- Arkansas Negro Teachers' Association: J. W. Brooks, Brinkley; Essie Cox, Arkadelphia; Little Rock, April, 1917.
- Arkansas School Directors' Association: Allen Winham, Texarkana; L. B. McClure, Russellville.
- Arkansas State Teachers' Association: R. C. Hall, Little Rock; W. E. Laseter, England; Little Rock, April, 1917.
- Manual Arts Association of Arkansas: H. Hosack, Little Rock; E. A. Funkhouser, Jonesboro; Little Rock, March, 1917.

California:
- California Council of Education: E. Morris Cox, Oakland; Arthur H. Chamberlain, Monadnock Building, San Francisco; San Francisco, April, 1917.
- California High School Teachers' Association: President, Herbert Lee, University High School, Oakland; Berkeley, July, 1917.
- California State Association of English Teachers: Emma J. Breck, 3003 Summit St., Oakland; Emma V. Schneider, 2934 West St., Oakland; San Francisco, October 28, 1916.
- California Teachers' Association: E. Morris Cox, Oakland; Arthur H. Chamberlain, Monadnock Building, San Francisco.
- California Teachers' Association, Bay Section: C. T. Du Four, Alameda; W. L. Glascock, San Mateo; Oakland, April 2–6, 1917.

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California—Continued.

Visual Education Association of California: C. H. Carson, High School, Pasadena; H. T. Clifton, High School, Pasadena.

Vocational Guidance Society of California: Richard G. Boone, Berkeley; Mrs. Elsie J. Grover, 121 Belvedere St., San Francisco.

Colorado:

Colorado Mathematical Society: Ira M. De Long, Boulder; Grace E. Shoe-Smith, 1130 York St., Denver.

Colorado Teachers' Association: J. H. Kelley, 232 Century Building, Denver; H. B. Smith, 232 Century Building, Denver.

Connecticut:

Connecticut Arts Association: Edward A. Kraus, Short Beach; William L. Hagen, New Britain; New Britain, April, 1917.

Connecticut Business Educators' Association: Frank G. Meredith, Meriden; Frances E. Ives, New Haven High School, New Haven; Meriden, February 16, 1917.

Connecticut Council of Education: Arthur T. Hadley, New Haven; Henry A. Tirrell, Norwich.

Connecticut Schoolmasters' Club: Mr. Stanley, Hartford; James C. Moody, New Britain; Hartford, 1916.

Connecticut State Supervisors' Association: L. K. Chance, Watertown; Harold E. Chittenden, Torrington.

Connecticut State Teachers' Association: Oscar L. Burdick, Stamford; S. P. Willard, Colchester; Hartford, New Haven, October, 1917.

Connecticut State Teachers' League: Ruth Crampton, East Hartford; Mary A. Campbell, 621 East Main St., New Britain.

Connecticut Superintendents' Association of Public Schools: E. C. Andrews, Greenwich; S. J. Slawson, Bridgeport; Hartford, December 15–16, 1916.

District of Columbia:

High School Teachers' Association: Marion Clark, McKinley Manual Training School, Washington; Ada Williams, McKinley Manual Training School, Washington.

Principals' Association of the Graded White Schools, District of Columbia: Adelaide Davis, 223 2d St. SE., Washington; Helen I. Walsh, 3427 13th St. NW., Washington; Washington, October 10, 1916.

School Club: W. P. Montgomery, Dunbar High School, Washington; W. T. S. Jackson, 1816 16th St. NW., Washington.

Teachers' Association of the District of Columbia: Charles M. Thomas, Miner Normal School, Washington; Edward H. Lawson, 17 Quincy Place NE., Washington; Washington, October 3, 1916.

Florida:

Florida Educational Association: J. H. Workman, Miami; R. L. Turner, Inverness; Arcadia, December 27–29, 1916.

Florida History Teachers' Association: Caroline Brevard, Tallahassee; Essie May Williams, 209 West Ashley St., Jacksonville; Arcadia, December, 1916.

Georgia:

Georgia County School Officials' Association: M. L. Brittain, Atlanta; M. L. Duggan, Atlanta.

Georgia Educational Association: R. E. Brooks, Albany; C. H. Bruce, Macon.

Georgia State High School Association: Joseph S. Stewart, University of Georgia, Athens; H. B. Robertson, Covington; Athens, June 14, 1917.

Idaho:

Idaho State Teachers' Association: M. A. Brannon, University of Idaho, Moscow; Ivy M. Wilson, Boise; Boise, Christmas holidays, 1916.

Illinois:

Association of Primary Supervisors and Directors of City Training Schools: Katherine Hamilton, Decatur; Abbie A. Hunter, Peoria; Danville.

Federation of Illinois Colleges: Thomas F. Holgate, Northwestern University, Evanston; H. E. Griffith, Knox College, Galesburg; Decatur, April 30 to May 1, 1917.

High School Conference, University of Illinois; Chairman of Conference Committee, Horace A. Hollister, University of Illinois, Urbana,; Urbana, November 23–25, 1916.

Illinois Association of Teachers of English: J. M. Clapp, Lake Forest; E. C. Baldwin, University of Illinois, Urbana; Urbana, November 25, 1916.

Illinois City Superintendents' Association: J. O. Engleman, Decatur; Lewis A. Mahoney, Moline; Urbana, November 22–24, 1916.

Illinois Manual Arts Association: L. Day Perry, Joliet; B. G. Leuchtenberger, Centralia; Peoria; February, 1917.

Illinois Montessori Association: Helen Little, Evanston; Olive Hunter, 5124 East End Ave., Chicago.

Illinois State Music Teachers' Association: Franklin G. Stead, Peoria Musical College, Peoria; Herbert O. Merry, Lincoln; Decatur, May 1–4, 1917.

Illinois State School Board Association: Allan D. Welch, 918 20th St., Rock Island; Mrs. G. A. Stover, Oak Park; Urbana-Champaign, November 22–23, 1916.

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Illinois—Continued.

Illinois State Teachers' Association: Gerard T. Smith, Peoria; Robert C. Moore, Carlinville: Springfield, December 27–29, 1916.

Schoolmasters' Club of Illinois: A. P. Johnson, Urbana; Edwin A. Turner, Normal; Normal, February, 1917.

Indiana:

Association of Indiana Industrial Teachers: Charles O. Mays, Richmond; Hubert W. Roberts, Muncie; Indianapolis, February 23–25, 1917.

Indiana Association of Psychology and Education: William O. Mills, Hanover; Francis M. Stalker, 914 South 5th St., Terre Haute; Indianapolis, October 28, 1916.

Indiana Association of Science and Mathematics Teachers: President, Claude E. Kitch, Indianapolis; Indianapolis, at time of State Teachers' Association.

Indiana Association of Teachers of English, Benjamin Null, Richmond; Clara Brown, Greensburg; Indianapolis, October, 1917.

Indiana City and Town Superintendents' Association: J. W. Holton, Shelbyville; J. W. Stott, Princeton.

Indiana City Superintendents' Research Club: Paul Van Riper, La Porte; F. J. Llewelyn, Mount Vernon; La Porte, October 23–24, 1916.

Indiana College Teachers of German: Frederick G. Mutterer; M. D. Baumgartner; Indianapolis, October, 1916.

Indiana History Teachers' Association: Beverley W. Bond, jr., Purdue University, Lafayette; D. H. Eisenberry, Muncie.

Indiana Music Teachers' Association: Edward Nell, Indianapolis; L. M. Tilson, Indiana State Normal School, Terre Haute; Indianapolis, probably April, 1917.

Indiana State Teachers' Association: George L. Roberts, Lafayette; J. B. Pearey, State House, Indianapolis; Indianapolis, probably October 31 to November 3, 1917.

Indiana University, Conference on Educational Measurements: Secretary, Cecile White, Bloomington; Bloomington, probably April 16–17, 1917.

Iowa:

College Association of Iowa: R. Watson Cooper, Fayette; David M. Edwards, Oskaloosa; Des Moines.

Iowa Association of Mathematics Teachers: Maud St. John, Des Moines; Ira S. Condit, Iowa State Teachers' College, Cedar Falls; Des Moines, November 3, 1916.

Iowa Association of Science Teachers: F. E. Goodell, North High School, Des Moines; Frances Church, East High School, Des Moines; Des Moines, November 2–4, 1916.

Iowa Association of Teachers of English: Emily Porter, Waterloo; Leota Hatswell, Red Oak; Des Moines, November 2, 1916.

Iowa Religious Education Association: Herbert F. Evans, Grinnell; David M. Edwards, Penn College, Oskaloosa.

Iowa Society of Social Science Teachers: L. B. Schmidt, State College, Ames; Mary A. Kasson, East High School, Des Moines; Des Moines, November, 1916.

Iowa State Federation of Teachers' Clubs: Josephine Burt, Burlington; Gertrude Jenne, Davenport; Des Moines, November 3, 1916.

Iowa State Teachers' Association: J. S. McCowan, Sioux City; O. E. Smith, Indianola; Des Moines, November 2–4, 1916.

Kansas:

Golden Belt Educational Association: H. Coover, Ellsworth; Anna Stanley, Grainfield; Hays, March 8–10, 1917.

Kansas Association of Mathematics Teachers: Mrs. Mary Newson, Topeka; Eleanora Harris, Hutchinson; Topeka, November 10, 1916.

Kansas Association of Superintendents of Cities of First and Second Class: J. O. Hall, Hutchinson; R. G. Mueller, Seneca; Emporia, October 19–21, 1916.

Kansas Association of Teachers of English: Lela Douthart, High School, Kansas City; Charlotte M. Leavitt, Washburn College, Topeka; Topeka, November 16, 1916.

Kansas History Teachers' Association: Secretary, Mary A. Whitney, Emporia; Topeka.

Kansas Manual Arts Association: George K. Wells, Emporia; V. M. Reppert, Russell; Lawrence, March, 1917.

Kansas State Teachers' Association: L. W. Mayberry, Wichita; F. L. Pinet, Topeka; Topeka, November 9–11, 1916.

Kentucky:

Association of Kentucky Colleges and Universities: John L. Patterson, University of Louisville, Louisville; Frank L. Rainey, Danville; Lexington, December 2, 1916.

Kentucky Educational Association: J. H. Bentley, Paducah; R. E. Williams, Louisville; Louisville, April, 1917.

Louisiana:

Louisiana Council of Education: A. B. Dinwiddie, Tulane University, New Orleans; G. C. Huckaby, Baton Rouge.

Louisiana School Board Association and Conference of Parish Superintendents: E. L. Kidd, Ruston, J. H. Bres, Port Allen; January, 1917.

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Louisiana—Continued.

Louisiana State Association of English Teachers: A. G. Reed, Baton Rouge; Margaret Schoenbrodt, Baton Rouge; Baton Rouge, June, 1917.

Louisiana Teachers' Association: F. M. Hamilton, Lake Charles; L. J. Alleman, Lafayette; Alexandria, April, 1917.

Maine:

Maine Council of Teachers of English: William H. Coleman, Lewiston; Jane M. Cutts, Farmington; probably Bangor, October 26, 1917.

Maine Teachers' Association: William B. Jack, Portland; Glenn W. Starkey, Augusta; probably Bangor, October 25–26, 1917.

Maryland:

Maryland Council of Teachers of English: W. H. Wilcox, Maryland State Normal School, Towson; Andrew H. Krug, Baltimore City College, Baltimore; Baltimore, November, 1917.

Maryland High School Teachers' Association: Joseph Blair, Sparrows Point; N. Price Turner, Salisbury; probably Baltimore, November or December, 1916.

Maryland History Teachers' Association: J. H. Latané, Johns Hopkins University, Baltimore; Laura J. Cairnes, Western High School, Baltimore.

Maryland State Federation of Grade Teachers: Mrs. Laura P. Todd, Baltimore; Mary T. Walsh, 211 South Collington Ave., Baltimore.

Maryland State Teachers' Association: Sydney S. Handy, St. Johns College, Annapolis; Hugh W. Caldwell, Chesapeake City; Baltimore, November 26–28, 1917.

Massachusetts:

Harvard Teachers' Association: Frank V. Thompson, 84 Brooks St., Brighton; Alexander J. Inglis, Harvard University, Cambridge; Cambridge, March, 1917.

High School Masters' Club of Massachusetts: Ernest G. Hapgood, Girls Latin School, Boston; John W. Hutchins, High School, Malden; Boston, December, 1916.

Massachusetts Association of School Superintendents: John C. Gray, Chicopee; Albert Robinson, Peabody; Boston, March 9, 1917.

Massachusetts Public School Janitors' Association: John Swindells, Fall River; Wallace C. Tilton, New Bedford; Salem, July 12–13, 1917.

Massachusetts Teachers' Association: Frank W. Chase, Newton; Frederic W. Plummer, Fall River; Boston, December 1, 1916.

Massachusetts Teachers' Federation: Henry H. Harris, Lowell; Ernst Makechnie, West Somerville; Cambridge, October, 1917.

Tufts College Teachers' Association: Arthur W. Peirce, Franklin; Edwin A. Shaw, Tufts College; Tufts College, October, 1917.

Michigan:

Michigan Association of School Superintendents and School Board Members: C. H. Carrick, Charlotte; H. C. Daley, Wyandotte; Ann Arbor.

Michigan Industrial Arts and Science Association: Duncan C. Hodges, 637 Colt Ave., Grand Rapids; L. H. Gunther, 1018 Watson St., Grand Rapids; Grand Rapids, November 2–3, 1916.

Michigan Schoolmasters' Club: C. O. Davis, University of Michigan, Ann Arbor; Louis P. Jocelyn, Ann Arbor; Ann Arbor, March, 1917.

Michigan State Federation of Teachers' Clubs: Edwin Miller, Detroit; Lizzie Hanchett, Grand Rapids; Grand Rapids, November 2–3, 1916.

Michigan State Teachers' Association: Dwight B. Waldo, Kalamazoo; John P. Everett, Kalamazoo; Grand Rapids, November 2–3, 1916.

Upper Peninsula Educational Association: S. O. Clinton, Baraga; Gilbert L. Brown, Marquette; Escanaba.

Minnesota:

Minnesota Associated School Boards: J. E. Malmin, Blue Earth; Mrs. H. Witherstine, Rochester; St. Paul, Minn., October 26–27, 1916.

Minnesota Association of County Superintendents: E. K. Sampson, Worthington; Anna Swenson, Ortonville; St. Paul, November 2–3, 1916.

Minnesota Educational Association: C. C. Baker, Albert Lea; E. D. Pennell, East High School, Minneapolis.

Minnesota Music Teachers' Association: J. Austin Williams, 41 South 6th St., Minneapolis; Carl Youngdahl, 41 South 6th St., Minneapolis; Winona, June 28–30, 1917.

Scandinavian Educational Association: A. A. Stomberg, 531 Walnut St. SE., Minneapolis; Miss Valborg Björn, Zumbrota; St. Paul, November 2–4, 1916.

Mississippi:

Mississippi Classical Teachers' Association: C. F. Capps, West Point; Susie Smylie, Hattiesburg; May 4, 1917.

Mississippi Teachers' Association: R. P. Linfield, Biloxi; H. L. McCleskey, Hazlehurst.

Missouri:

Missouri College Union: O. E. Kriege, Warrenton; T. Berry Smith, Fayette; Warrenton, November, 1916.

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Missouri—Continued.

Missouri Negro Teachers' Association: Secretary, C. G. Williams, Boonville; St. Louis, November 16–18, 1916.

Missouri Society of Teachers of English: Roy I. Johnson, Kansas City; Amanda Beaumont, High School, St. Joseph; St. Louis, November 16–18, 1916.

Missouri Society of Teachers of History and Government: Dr. Griffin, Jewell College, Liberty; J. E. Wrench, Columbia; St. Louis, November 8–10, 1916.

Missouri Society of Teachers of Mathematics and Science: E. B. Street, Independence; L. D. Ames, Columbia; St. Louis, November 16–18, 1916, with the Missouri State Teachers' Association.

Missouri State Teachers' Association: W. W. Thomas, Springfield; E. M. Carter, Columbia; St. Louis, November 16–18, 1916.

Montana:

Montana State Council of English Teachers: W. F. Brewer, Bozeman; George R. Coffman, Missoula; Missoula, November 27–28, 1916.

Montana State Teachers' Association: John Dietrich, Helena; H. H. Swain, Helena; Missoula, November 27–29, 1916.

Nebraska:

Nebraska Association of City Superintendents: Wilson Tout, North Platte; J. A. True, Cozad.

Nebraska History Teachers' Association: Clark E. Persinger, University of Nebraska, Lincoln; Julia M. Wort, High School, Lincoln; Omaha, November 9, 1916, with Nebraska State Teachers' Association.

Nebraska Schoolmasters' Club: W. N. Delzell, State Normal School, Peru; H. E. Bradford, State Farm School, Lincoln; Lincoln, about November 15, 1916.

Nebraska State Teachers' Association: G. W. A. Luckey, Lincoln; E. U. Graff, Omaha; Omaha, November 8–10, 1916.

Women's Educational Club: Anna Tibbets, Peru; Mary Foster, Union; Omaha, November 5, 1916.

Nevada:

Nevada State Educational Association: P. G. McWhinney, Elko; Mrs. M. L. Bray, Carson City; Reno, December, 1916.

New Hampshire:

New Hampshire Manual Training Club: Rolland R. Gove, Concord; Jules Wiesmann, jr., Concord; Plymouth, December, 1916.

New Hampshire State Kindergarten Association: Katherine Runnells, Nashua; Elsie M. Dustin, Penacook St., Manchester; May, 1917.

New Hampshire State Teachers' Association: John Gilman, Lisbon; Inez Vaughan, Keene.

New Jersey:

Association of Teachers of English of New Jersey: Charles G. Osgood, Princeton; L. E. French, High School, Atlantic City; November, 1916.

Council of Education of the State of New Jersey: Louis Bevier, jr., New Brunswick; J. Howard Hulsart, Dover; probably Newark, March 9, 1917.

New Jersey Science Teachers' Association: H. Morgan Campbell, Bayonne; W. J. Dumm, Barringer High School, Newark; Atlantic City, February 10, 1917.

New Jersey State Teachers' Association: Frank H. Lloyd, Matawan; H. J. Neal, Phillipsburg; Atlantic City, December 27–29, 1916.

New Mexico:

New Mexico Association for Science: Charles T. Kirk, Albuquerque; R. W. Goddard, State College; Santa Fe, Thanksgiving week, 1916.

New Mexico Educational Association: John Milne, Albuquerque; J. H. Wagner, Santa Fe; Santa Fe, November 27–29, 1916.

New York:

Agricultural Teachers and Principals' Association: E. W. Thurston, Chateaugay; Fred W. King, Lowville; Syracuse, December, 1916.

Associated Academic Principals: William H. McClelland, Perry; Edward P. Smith, North Tonawanda; Syracuse, December 28–30, 1916.

Association of Colleges in the State of New York: James R. Day, Syracuse; Augustus S. Downing, Education Building, Albany.

Association of Medical Inspectors and Physical Educators of New York State: Clinton P. McCord, Albany; Edward F. Brown, 105 East 22d St., New York.

Classical Association of New York State: Mason D. Gray, Rochester; Joseph P. Behm, Central High School, Syracuse; Buffalo, November 27–29, 1916.

New York State Association of District Superintendents: Fred W. Hill, Spencerport; Gertrude E. Hyde, Moira; Rochester, February, 1917.

New York State Association of English Teachers: Charles R. Gaston, Richmond Hill High School, New York; Azariah B. Sias, West High School, Rochester; Buffalo, November 26–28, 1916.

New York State Council of City School Superintendents: W. B. Sprague, Utica; George M. Elmendorf, Herkimer; Albany, October, 1917.

New York State Council of Elementary School Principals and Teachers: E. A. Knowles, Niagara Falls; Bell Willson, Fredonia; Buffalo, November, 1916.

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New York—Continued.

New York State Modern Language Association: Frank C. Barnes, Union University, Schenectady; Arthur G. Host, Troy High School, Troy; Buffalo, November 28–29, 1916.

New York State Science Teachers' Association: Ernest F. Conway, North Syracuse; Harry A. Carpenter, West High School, Rochester; Syracuse, December 29–31, 1916.

New York State Teachers' Association: Alfred C. Thompson, Brockport; Richard A. Searing, North Tonawanda; Buffalo, November 25–27, 1916.

North Carolina:

North Carolina Association of City Public School Superintendents: Joe S. Wray, Gastonia; Harry P. Harding, Charlotte; Raleigh, November 29 to December 1, 1916.

North Carolina Association of Geography Teachers: Collier Cobb, Chapel Hill; John E. Smith, Chapel Hill.

North Carolina Kindergarten Association: Hattie M. Scott, 200 Haywood St., Asheville; Ethel Ray, 85 Hillside St., Asheville; Raleigh, November, 1916.

North Carolina State Sunday School Association: G. T. Stephenson, Winston-Salem; J. Walter Long, Greensboro; Burlington, November 19–20, 1916.

North Carolina Teachers' Assembly: Rebert H. Wright, Greenville; E. E. Sams, Raleigh; Raleigh, November 29 to December 1, 1916.

North Carolina Teachers' Assembly, Grammar Grade Association: Usurla Blankenship, Fort Mill; Mary McKenzie, Salisbury; Raleigh, November 30, 1916.

North Dakota:

North Dakota Association of English Teachers: Vernon B. Squires, University; Blanche L. True, Fargo College, Fargo; Fargo, November 15–17, 1916, with the North Dakota Educational Association.

North Dakota Branch of the National Council of Geography Teachers: Howard E. Simpson, University; Huldah L. Winsted, State Normal School, Minot; Fargo.

North Dakota City Superintendents' Association: C. J. N. Nelson, Beach; Nelson Sauvain, Devils Lake; Fargo, about November 1, 1916.

North Dakota Educational Association: E. R. Edwards, Jamestown; W. E. Parsons, Bismarck.

North Dakota Teachers' History Association: P. H. Lehman, Grand Forks; Hazel B. Nielson, Valley City; Fargo, November, 1916.

Ohio:

Association of Ohio Teachers of Mathematics and Science: F. Anderegg, Oberlin College, Oberlin; H. H. Reighley, 81 North Terrace St., Columbus; Columbus, April, 1917.

Ohio Association of College Presidents and Deans: Walter G. Clippenger, Westerville; Mary I. Park, Heidelberg University, Tiffin; Columbus, Easter week, 1917.

Ohio Association of English Teachers: May McKitrick, East Technical High School, Cleveland; C. E. Thomas, Woodward High School, Cincinnati; Columbus, December, 1916.

Ohio College Association: Vivian Small, Painesville; W. G. Leutner, Western Reserve University, Cleveland; Columbus, April 6–7, 1917.

Ohio Drawing and Manual Training Teachers' Association: Mrs. Jane S. Barnhardt, High School, Akron; Karl S. Bolander, High School of Commerce, Columbus; probably Columbus, Christmas holidays, 1916.

Ohio History Teachers' Association: Wilbur H. Siebert, Ohio State University, Columbus; Wilmer C. Harris, Ohio State University, Columbus; Columbus, October 12–13, 1917.

Ohio Industrial Arts Association: C. S. Van Deusen, Kent; J. W. Moyer, Sandusky; Columbus, February 9–10, 1917.

Ohio School Improvement Federation: F. A. Derthick, Mantua; W. N. Beetham, Wellsburg, W. Va.; Columbus, Christmas holidays, 1916.

Ohio Society of College Teachers of Education: W. P. Burris, University of Cincinnati, Cincinnati; T. B. Birch, Wittenberg University, Springfield; Columbus.

Ohio State Association of School Board Members: R. G. Ingleson, Avon Lake; W. J. Knight, Urbana; Columbus, probably February, 1917.

Ohio State Teachers' Association: J. V. McMillan, Marietta; W. E. Kershner, 48 East Gay St., Columbus; Columbus, Christmas holidays, 1916.

Oklahoma:

Oklahoma Council of Teachers of English: F. C. Oakes, Edmond; Freeman Miller, Stillwater; Oklahoma City, December 1–2, 1916.

Oklahoma Educational Association: Charles W. Briles, Stillwater; B. C. Klepper, Shawnee; Oklahoma City, November 30 to December 2, 1916.

Oregon:

County Superintendents' Association of Oregon: W. M. Smith, Salem; Fay Clark, Vale; Salem, January 2, 1917.

Oregon Council of Teachers of English: E. S. Bates, Eugene; Miss R. B. Parrott, Oregon Normal School, Monmouth; Portland, probably Christmas week, 1916.

Oregon State Teachers' Association: E. T. Carleton, Salem; E. D. Ressler, Corvallis; Portland, December 27–29, 1916.

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Pennsylvania:

Association of School Board Secretaries of Pennsylvania: Charles H. Meyer, Johnstown; A. W. Mas, Wilkes-Barre; Harrisburg, February, 1917.

Pennsylvania Schoolmasters' Club: H. P. McMichael, McKeesport; Charles W. Shaffer, Wilmerding; Pittsburgh, November 11, 1916.

Pennsylvania State Educational Association: Eli M. Rapp, Reading; J. P. McCaskey, Lancaster; Harrisburg, December 27–29, 1916.

Pennsylvania State School Directors' Association: Charles M. Magee, Easton; D. D. Hammelbaugh, 121–123 Chestnut St., Harrisburg; Harrisburg, February 8–9, 1917.

Public Education and Child Labor Association of Pennsylvania, 1015 Witherspoon Building, Philadelphia: Franklin N. Brewer; B. M. Watson.

Rhode Island:

Rhode Island Institute of Instruction: Willard H. Bacon, Westerly; M Davitt Carroll, 76 Beaufort St., Providence; Providence, October 25–27, 1917.

South Carolina:

Association of Colleges of South Carolina: H. N. Snyder, Wofford College, Spartanburg; L. T. Baker, University of South Carolina, Columbia; spring, 1917.

South Carolina Association of Elementary Schools: Lottie Olney, Charleston; Mrs. John Hargrave, Dillon.

South Carolina Association of Town and City Superintendents and Principals: J. C. Daniell, Darlington; L. M. Bauknight, Latta; Columbia, Christmas holidays, 1916.

South Carolina School Improvement Association: Mary Eva Hite, Columbia; Isadora Williams, Liberty; with the South Carolina State Teachers' Association.

South Carolina State Colored Teachers' Association: R. S. Wilkinson, Orangeburg; C. H. Jones, Orangeburg; Orangeburg, July 19, 1917.

South Carolina State Teachers' Association: William C. Bynum, Georgetown; R. C. Burts, Rock Hill; Columbia, March, 1917.

South Dakota:

South Dakota Commercial Teachers' Association: Jay W. Miller, Mitchell; Hazel Wall, Sioux Falls; Watertown, November 20–21, 1916.

South Dakota Educational Association: J. W. McClinton, Mitchell; A. H. Seymour, Aberdeen; Watertown, November 27–29, 1916.

South Dakota History Teachers' Association: Carl Christopheismeier, University of South Dakota, Vermilion; L. W. Sampson, Aberdeen; Watertown, November 20–22, 1916.

Tennessee:

Tennessee History Teachers' Association: J. W. Russell, Peabody College, Nashville; A. Max Souby, Murfreesboro; Nashville, April, 1917.

Tennessee State Public School Officers' Association: J. G. Stinson, Lewisburg; Claude J. Bell, Nashville; Nashville, January, 1917.

Tennessee State Teachers' Association: J. G. Stinson, Lewisburg; P. L. Harned, Clarksville; Nashville, January 9–11, 1917.

Texas:

Conference for Education in Texas: President, Pat M. Neff, Waco.

Texas State History Teachers' Association: Frederic Duncalf, Austin; L. F. McKay, Temple; Fort Worth, probably November 30 or December 1, 1916.

Texas State Teachers' Association: Nat Benton, Corpus Christi; H. B. Cowles, Corpus Christi; Fort Worth, November 30 to December 2, 1916.

Utah:

Utah Educational Association: Ephraim G. Gowans, State Capitol, Salt Lake City; J. Fred Anderson, 665 Conway Court, Salt Lake City; Salt Lake City, December 20–22, 1916.

Vermont:

Vermont Schoolmasters' Club: H. D. Casey, Springfield; J. C. Walker, Vergennes; Burlington, March, 1917.

Vermont State Teachers' Association: Elwin L. Ingalls, Burlington; Etta Franklin, Rutland; Burlington, October 12–14, 1916.

Vermont Women Teachers' Club: Mabel Kidder, Proctor; Ella Ferrin, Castleton.

Virginia:

Association of Colleges and Secondary Schools of Virginia: D. E. McQuilkin, Roanoke High School, Roanoke; J. Brookes Smith, Hampden-Sidney; Richmond, Thanksgiving week, 1916, with Virginia State Teachers' Association.

Association of Virginia Colleges: Henry L. Smith, Lexington; Charles G. Maphis, University.

Cooperative Education Association of Virginia: Mrs. B. B. Munford, 503 East Grace St., Richmond; J. H. Montgomery, 809 Chamber of Commerce, Richmond; Richmond, November 29 to December 1, 1916.

Primary Teachers' Association of Virginia: Blanche Bulifant, East Radford; Mrs. B. B. Wisman, Salem; Richmond, November 28–December 1, 1916.

Public School Trustees' Association of Virginia: N. C. Davis, Fairfax; M. F. McGehee, Keysville, Richmond, November, 1916.

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Virginia—Continued.

State Educational Conference: Officers of executive committee: Charles G. Maphis, University; J. H. Montgomery, Richmond; Richmond, November 28 to December 1, 1916.

Virginia English Teachers' Association: J. M. Grainger, Farmville; Elizabeth Kelly, Norfolk; Richmond, Thanksgiving week, 1916.

Virginia State Teachers' Association: C. G. Maphis, University; W. C. Blakey, Richmond; Richmond, Thanksgiving week, 1916.

Washington:

Puget Sound English Masters' Club: Robert M. Garrett, University of Washington, Seattle; E. H. Butler, Washington School, Tacoma; Tacoma, May, 1917.

Puget Sound Schoolmasters' Club: O. B. Sperlin, Tacoma; Frank Farrar, 6725 24th Ave., N. W., Seattle; Tacoma, November, 1916.

Washington Educational Association: E. L. Cave, Bellingham; O. C. Whitney, 818 North Adams St., Tacoma; Tacoma, October 1917.

West Virginia:

West Virginia Council of Teachers of English: Walter Barnes, Fairmont; Mary M. Atkeson, Morgantown; Huntington, June 15, 1917.

West Virginia Education Association: L. B. Hill, Athens; R. W. Thrush, Keyser; Huntington, June 13–15, 1917.

West Virginia State Teachers' Association: C. W. Moss, Kimball; Etta Hall, Montgomery; Institute, November 25, 1916.

Wisconsin:

Association of English Teachers of Wisconsin: George E. Teter, Madison; J. C. Castleman, Milwaukee; Milwaukee, November 2–4, 1916.

Wisconsin Association of Continuation School Directors and Board Members: R. L. Cooley, Milwaukee; A. R. Graham, Racine; Milwaukee, November 2–4, 1916.

Wisconsin Association of Mathematics Teachers: W. H. Williams, Platteville; Walter W. Hart, University of Wisconsin, Madison.

Wisconsin Association of Modern Foreign Language Teachers: C. H. Bachhuber, Port Washington J. D. Deihl, Madison; Eau Claire, May 11–12, 1917.

Wisconsin Montessori Association: Mrs. Joseph Bischoff, Stevens Point; Mrs. Fred Ball, Stevens Point.

Wisconsin Music Teachers' Association: Liborius Semmann, Marquette University, Milwaukee; Mrs. Georgia C. Hyde, 415 Park St., Madison.

Wisconsin Physical Education Society: George W. Wittich, Milwaukee School Board, Milwaukee; Edith R. Dunham, 628 Frederick Ave., Milwaukee.

Wisconsin Principals' and Superintendents' Association: F. E. Converse, Beloit; William Milne, Rhinelander; Madison.

Wisconsin School Arts and Home Economics Association: William H. Varnum, University of Wisconsin, Madison; P. H. Graven, Madison; Milwaukee, November 4–5, 1916.

Wisconsin Superintendents' and Supervising Principals' Association: T. J. Jones, 621 71st Ave., West Allis; H. W. Kircher, Dodgeville.

Wisconsin Teachers' Association: Milton C. Potter, Milwaukee; M. A. Bussewitz, 435 Kenwood Boulevard, Milwaukee.

Wyoming:

Wyoming State Institute: J. E. Butterworth, Laramie; Jennie McGuffey, Cody; Cheyenne, November 29 to December 2, 1916.

3.—*City.*

Association of Women Principals of Public Schools of New York City: Jessie B. Colburn, 8 West 103d St.; Olive M. Jones, 101 West 85th St.; October 9, 1916.

Boston Teachers' Club: Cora E. Bigelow, 36 Hancock St.; Eva Z. Prichard, Girls' Latin School; September, 1916.

Brooklyn Teachers' Association: Frederic W. Mar, Public School 108; Adele Sondheim, Public School 108.

Chicago Principals' Club: John H. Stube, 5 South Wabash Ave.; William Hedges, 5 South Wabash Ave.; September 24, 1916.

Chicago Teachers' Federation: Ida L. M. Fursman, 4465 North Kildare Ave.; Frances E. Harden, 1543 Sherwin Ave.; September 16, 1916.

Cincinnati Schoolmasters' Club: F. W. Dearness, 3492 Cheviot Ave.; M. R. McElroy, 6100 Prentice St.; September 9, 1916.

Detroit Teachers' Association: Sadie Alley, 356 West Fort St.; Alice V. Guysi, 50 Broadway; October 2, 1916.

Educational Society of Baltimore: Edward F. Buchner, Johns Hopkins University; Andrew H. Krug, Baltimore City College; probably October 13, 1916.

Elementary Teachers' Association (Baltimore): Laura W. Manister, 14 Melvin Ave., Catonsville; Blanche Morgan, 1127 North Carolina St.

Federation of Teachers' Associations (New York City): Theophilus Johnson, 17 3d St., Woodside, L. I.; Olive M. Jones, 101 West 85th St.

High School Teachers' Association of New York City: Fred C. White, Morris High School; Elizabeth A. Roche, Washington Irving High School.

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Interborough Association of Women Teachers (New York City): Grace C. Strachan, 801 East 19th St., Brooklyn; Lillian I. Powers, 56 Macon St., Brooklyn; New York, September 15, 1916.

Los Angeles City Teachers' Club: Alice L. Merrill, 130½ Witmer St.; Louise Curtain, 937 Francisco St.; May, 1917.

New Haven Teachers' League: Carolyn Merchant, 145 Lenox St.; Lillian R. Holbrook, 184 Lawrence St.

New York Academy of Public Education: Stephen P. Duggan, College of the City of New York; Paul Klapper, College of the City of New York.

New York City Association of Teachers of English: Charles R. Gaston, 215 Abingdon Road, Richmond Hill; William P. Wharton, 155 West 65th St.; September 30, 1916.

New York Montessori Association: Raymond P. Holden, 323 Riverside Drive; Emily H. Greenman, 353 West 117th St.

New York Schoolmasters' Club: James M. Edsall, 8418 Bay Parkway, Brooklyn; Matthew D. Quinn, 101 East 92d St.; October 14, 1916.

Philadelphia Teachers' Association: Mrs. Emma V. Tindal, S. Weir Mitchell School; Mrs. Clara H. Morris, High School for Girls; September 11, 1916.

Pittsburgh Teachers' Association: Mary P. Lang, 1003 Bessemer Building; Margaret Trosch, 1003 Bessemer Building; September 12, 1916.

Portland (Oreg.) Grade Teachers' Association: Viola Ortschild; Eugenia Morse.

Public Education Association of Buffalo: Fenton M. Parke, 123 Park St.; Glen Edwards, 1101 Chamber of Commerce Building.

Public Education Association of Philadelphia: Franklin N. Brewer, The Wanamaker Store; Jane R. Harper, acting, 1015 Witherspoon Building.

Public Education Association of the City of New York: Charles P. Howland, 37 Wall St.; Howard W. Nudd, 8 West 40th St.; January, 1917.

Public School Teachers' Association of Baltimore: Charles J. Koch, Madison and Lafayette Ave.; Minnie Daugherty, 637 West North Ave.; October 9, 1916.

Public School Teachers' Association of Providence, R. I.: Frank A. Spratt, 276 Washington Ave.; Mary C. Dunn, 127 Vinton St.

Schoolmen's Club of Philadelphia: Alfred V. Sayre, 2332 North Park Ave.; Thomas Groetzinger, 58th St. and Williams Ave.; September, 1916.

Teachers' Council (New York City): Magnus Gross, Public School 29; Mamie Fay, 25 Burling Ave., Flushing, L. I.; September 22, 1916.

XXVIII.—Learned and Civic Organizations.

The following list shows, first, the name of the organization; second, the name and address of the president; third, the name and address of the secretary; fourth, the place and date of the next meeting.

American Academy of Arts and Letters: William D. Howells, York, Me.; Robert U. Johnson, 70 5th Ave., New York, N. Y.; New York, N. Y., November 15–17, 1916.

American Academy of Medicine: George A. Hare, Fresno, Cal.; Thomas Wray Grayson, 1101 Westinghouse Building, Pittsburgh, Pa.; New York, N. Y., June 5–8, 1917.

American Academy of Political and Social Science: Leo S. Rowe, University of Pennsylvania, Philadelphia, Pa.; J. P. Lichtenberger, 4024 Spruce St., Philadelphia, Pa.; Philadelphia, Pa., April, 1917.

American Association for Labor Legislation: Irving Fisher, Yale University, New Haven, Conn.; John B. Andrews, 131 East 23d St., New York, N. Y.; Columbus, Ohio, December 27–29, 1916.

American Association for the Advancement of Agricultural Science: Herbert Osborne, Ohio State University, Columbus, Ohio; C. P. Gillett, Colorado Agricultural College, Fort Collins, Colo.

American Association for the Advancement of Science: Charles R. Van Hise, University of Wisconsin, Madison, Wis.; L. O. Howard, Smithsonian Institution, Washington, D. C.

American Association for the Study and Prevention of Infant Mortality: William C. Woodward, Washington, D. C.; Gertrude B. Knipp, 1211 Cathedral St., Baltimore, Md.

American Association of Museums: Henry R. Howland, Buffalo, N. Y.; Paul M. Rea, Charleston Museum, Charleston, S. C.; May 21–23, 1917.

American Chemical Society: Charles H. Herty, Chapel Hill, N. C.; Charles L. Parsons, Box 535, Washington, D. C.; Kansas City, Kans., March or April, 1917.

American Civic Association: J. Horace McFarland, Harrisburg, Pa.; Richard B. Watrous, 914 Union Trust Building, Washington, D. C.

American Economic Association: T. N. Carver, Harvard University, Cambridge, Mass.; Allyn A. Young, Cornell University, Ithaca, N. Y.; Columbus, Ohio, December 27–30, 1916.

American Genetic Association: David Fairchild, Bureau of Plant Industry, U. S. Department of Agriculture, Washington, D. C.; George M. Rommel, Bureau of Animal Industry, U. S. Department of Agriculture, Washington, D. C.

American Geographical Society: John Greenough, 33 East 63d St., New York, N. Y.; Archibald D. Russell, Broadway and 156th St., New York, N. Y.

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American Historical Association: George L. Burr, Cornell University, Ithaca, N. Y.; W. G. Leland, 1140 Woodward Building, Washington, D. C.; Cincinnati, Ohio, December 27-30, 1916.

American Institute of Social Service (Bible House, Astor Place, New York, N. Y.): Josiah Strong; William B. Patterson.

American Library Association: Walter L. Brown, Public Library, Buffalo, N. Y.; George B. Utley, 78 East Washington St., Chicago, Ill.

American Mathematical Society: E. W. Brown, 116 Everit St., New Haven, Conn.; F. N. Cole, Columbia University, New York, N. Y.; New York, N. Y., December 27-28, 1916, and Chicago, Ill., probably December 29-30, 1916.

American Medical Association: Rupert Blue, Washington, D. C.; Alexander R. Craig, 535 North Dearborn St., Chicago, Ill.; New York, N. Y., June 4-8, 1917.

American Philological Association: Carl D. Buck, University of Chicago, Chicago, Ill.; Frank G. Moore, Columbia University, New York, N. Y.; St. Louis, Mo., December 27-29, 1916.

American Philosophical Association: A. O. Lovejoy, Baltimore, Md.; E. G. Spaulding, Princeton University, Princeton, N. J.; New York, N. Y., December, 1917.

American Philosophical Society: W. W. Keen, 1729 Chestnut St., Philadelphia, Pa.; I. Minis Hays, 104 South 5th St., Philadelphia, Pa.; Philadelphia, Pa., April, 1917.

American Political Science Association: Jesse Macy, Grinnell College, Grinnell, Iowa; Chester Lloyd Jones, University of Wisconsin, Madison, Wis.; Cincinnati, Ohio, December 27-30, 1916.

American Psychological Association: Raymond Dodge, Wesleyan University, Middletown, Conn.; Robert M. Ogden, Cornell University, Ithaca, N. Y.; New York, N. Y., December 27-29, 1916.

American Social Hygiene Association: Abram W. Harris, 150 Fifth Ave., New York, N. Y.; William F. Snow, 105 West 40th St., New York, N. Y.; St. Louis, Mo., November 20-21, 1916.

American Social Science Association: George G. Battle, 59 Wall St., New York, N. Y.; W. C. Le Gendre, 59 Wall St., New York, N. Y.

American Society for Thrift: S. W. Straus, 150 Broadway, New York, N. Y.; Henry R. Daniel, 6 North Clark St., Chicago, Ill.

American Sociological Society: George E. Vincent, University of Minnesota, Minneapolis, Minn.; Scott E. W. Bedford, University of Chicago, Chicago, Ill.; Columbus, Ohio, December 27-29, 1916.

American Statistical Association: Charles P. Neill, Washington, D. C.; Carroll W. Doten, 491 Boylston St., Boston, Mass.; Columbus, Ohio, December 27-30, 1916.

Association of American Geographers: Mark Jefferson, Ypsilanti, Mich.; Isaiah Bowman, Broadway and 156th St., New York, N. Y.; New York, N. Y., December, 1916.

Botanical Society of America: Robert A. Harper, Columbia University, New York, N. Y.; H. H. Bartlett, University of Michigan, Ann Arbor, Mich.; New York, N. Y., December 26-30, 1916.

Child Conservation League of America: Winfield S. Hall, 2431 South Dearborn St., Chicago, Ill.; Mrs. Minnette C. Hair, Woman's Temple, Chicago, Ill.; fall, 1916.

Geological Society of America: John M. Clarke, Education Building, Albany, N. Y.; Edmund Otis Hovey, American Museum of Natural History, New York, N. Y.; Albany, N. Y., December 25-29, 1916.

Mathematical Association of America: E. R. Hedrick, Columbia, Mo.; W. D. Cairns, Oberlin, Ohio; New York, N. Y., December, 1916.

Modern Language Association of America: James D. Bruce, University of Tennessee, Knoxville, Tenn.; William G. Howard, Harvard University, Cambridge, Mass.; Princeton, N. J., December 27-29, 1916.

National Academy of Sciences: William H. Welch, 807 St. Paul St., Baltimore, Md.; Arthur L. Day, Smithsonian Institution, Washington, D. C.; Boston, Mass., November 13-15, 1916.

National Agricultural Society: James Wilson, 2 West 45th St., New York, N. Y.; P. C. Long, 2 West 45th St., New York, N. Y.; New York, N. Y., 1917.

National Civic Federation: Seth Low, 30 East 64th St., New York, N. Y.; Ralph M. Easley, Metropolitan Tower, New York, N. Y.; New York, N. Y., probably December, 1916.

National Conference of Charities and Correction: Frederic Almy, 181 Franklin St., Buffalo, N. Y.; William T. Cross, 315 Plymouth Court, Chicago, Ill.; Pittsburgh, Pa., June 6-13, 1917.

National Economic League: Secretary, J. W. Beatson, 6 Beacon St., Boston, Mass.

National Forward to Land League: W. J. Hoggson, 7 East 44th St., New York, N. Y.; Havland H. Lund, Hotel Albert, New York, N. Y.

National Geographic Society: O. H. Tittmann, National Geographic Building, Washington, D. C.; Gilbert H. Grosvenor, National Geographic Building, Washington, D. C.; Washington, D. C., January 7, 1917.

National Institute of Arts and Letters: Edwin H. Blashfield, 48 Central Park South, New York, N. Y.; Ripley Hitchcock, 34 Gramercy Park, New York, N. Y.; New York, N. Y., November 16-17, 1916.

National Institute of Social Sciences: Nicholas M. Butler, Columbia University, New York, N. Y.; Lillie H. French, 225 Fifth Ave., New York, N. Y.; New York, N. Y., January 19, 1917.

National Municipal League: Lawson Purdy, Municipal Building, New York, N. Y.; Clinton R. Woodruff, 703 North American Building, Philadelphia, Pa.; Springfield, Mass., November 23-25, 1916.

Pan-American Society of the United States: Henry White, Mills Building, 15 Broad St., New York, N. Y.; Harry E. Bard, Mills Building, 15 Broad St., New York, N. Y.

Southern Commercial Congress: Duncan U. Fletcher, Southern Building, Washington, D. C.; Clarence J. Owens, Southern Building, Washington, D. C.; Norfolk, Va., December 11-14, 1916.

Southern Sociological Congress: C. H. Brough, Little Rock, Ark.; J. E. McCulloch, Nashville, Tenn.

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XXIX.—State Federations of Women's Clubs.

The officers of the General Federation of Women's Clubs (national organization) are: President, Mrs. Percy V. Pennybacker, Austin, Tex.; secretary, Mrs. Eugene Reilley, 508 Park Avenue, Charlotte, N. C.; manager bureau of information, Mrs. Mary I. Wood, Portsmouth, N. H.

Name.	President.	Secretary.	Meeting.
Alabama	Mrs. James Fullerton Hooper, 610 Mabry St., Selma.	Mrs. Arthur Loeb, 849 Broad St., Selma.	Birmingham, Nov. 14–18, 1916.
Arizona	Mrs. H. A. Morgan, Wilcox	Mrs. J. W. Smith, Wilcox	Globe, January, 1917.
Arkansas	Mrs. John Ike Moore, Helena.	Mrs. Walter Wright, Helena	Pine Bluff, Nov. 7–10, 1916.
California	Mrs. E. D. Knight, 238 San Jose Ave., San Francisco.	Mrs. B. F. Lucas, 1004 Masonic Ave., San Francisco.	Pasadena, May 1–5, 1917.
Colorado	Mrs. Walter Raymond Garretson, Hotel Heese, Denver.	Mrs. H. B. Teller, 1248 York St., Denver.	
Connecticut	Mrs. James R. Bolton, 61 Division St., New Haven.	Mrs. C. J. Curtiss, 119 Livingston St., New Haven.	
Delaware	Ray Heydrick, Bridgeville.	Mrs. C. Leon Cannon, Bridgeville.	May, 1917.
District of Columbia.	Mrs. Court F. Wood, 311 E. Capitol St., Washington.	Mrs. Jason Waterman, 1807 Third St. NE., Washington.	May 2, 1917.
Florida	Mrs. W. S. Jennings, 1845 Main St., Jacksonville.	Mrs. H. B. Minium, 1825 Walnut St., Jacksonville.	Miami, Nov. 21–24, 1916.
Georgia	Mrs. Z. I. Fitzpatrick, Thomasville.	Mrs. H. H. Merry, Pelham	
Idaho	Mrs. John P. Vollmer, Lewiston.	Mrs. George A. Day, Lewiston.	October, 1916.
Illinois	Mrs. Charles H. Zimmerman, 713 N. Central Ave., Chicago.	Mrs. G. M. Palmer, 1139 S. Fourth St., Springfield.	Champaign, Nov. 14–16, 1916.
Indiana	Mrs. Carolyne R. Fairbanks, 409 E. Berry St., Fort Wayne.	Mrs. John E. Moore, Kokomo.	Indianapolis, Nov. 1–3, 1916.
Iowa	Mrs. Francis E. Whitley, 728 1st St., Webster City.	Mrs. W. H. Snider, 1016 Tremont Ave., Davenport.	Third week in May, 1917.
Kansas	Mrs. J. M. Miller, Council Grove.	Mrs. A. J. Kenwell, Council Grove.	April or May, 1917.
Kentucky	Mrs. Morris Bartlett, Lawrenceburg.	Mrs. George Longnecker, Maysville.	Maysville.
Louisiana	Mrs. J. D. Wilkinson, 624 Egan St., Shreveport.	Mrs. W. A. Wilkinson, 654 Egan St., Shreveport.	
Maine	Mrs. Grace A. Wing, 202 Summer St., Auburn.	Mrs. Ezra White, Main St., Lewiston.	Kineo, Sept. 13–15, 1916.
Maryland	Mrs. Francis Sanderson, Piedmont Ave., Walbrook.	Mrs. W. W. Emmart, 817 N. Fremont St., Baltimore.	Baltimore, Apr. 25–26, 1917.
Massachusetts	Mrs. Herbert J. Gurney, 145 Warren Ave., Wollaston.	Mrs. Arthur W. Lane, 7 Wollaston Road, Auburndale.	
Michigan	Mrs. R. H. Ashbaugh, 43 E. Boston Blvd., Detroit.	Mrs. Frank P. Dodge, 84 S. Main St., Adrian.	Jackson, October, 1916.
Minnesota	Mrs. W. T. Coe, Wayzata	Mrs. W. I. Gray, 2102 Lake of Iles Blvd., Minneapolis.	Anoka, Sept. 19–22, 1916.
Mississippi	Mrs. Edward McGehee, Como.	Mrs. J. H. Price, Magnolia	
Missouri	Mrs. William R. Chivvis, 4232 W. Pine Blvd., St. Louis.	Mrs. F. H. Littlefield, Warwick Hotel, St. Louis.	May, 1917.
Montana	Mrs. E. L. Houston, Bozeman.	Mrs. F. I. Powers, Bozeman.	
Nebraska	Mrs. J. N. Paul, St. Paul	Mrs. J. Rowan, Alliance	
Nevada	Mrs. Charles P. Squires, Las Vegas.	Mrs. Roy W. Martin, Las Vegas.	Goldfield, October, 1916.
New Hampshire	Mrs. Frederick J. Shepard, East Derry.	Mabel C. Berry, East Derry	May, 1917.
New Jersey	Mrs. Charles W. Stockton, Ridgewood.	Mrs. Brice Collard, 29 Monticello Ave., Jersey City.	Ridgewood, Oct. 28, 1916. Atlantic City, May 3, 4, 5, 1917.
New Mexico	Mrs. Rupert H. Asplund, 144 Marcy St., Santa Fe.	Mrs. Frank W. Parker, 119 Manhattan Ave., Santa Fe.	Las Vegas, October, 1916.
New York	Mrs. Albert H. Hildreth, 752 Comstock Ave., Syracuse.	Mrs. Merwin W. Lay, 1063 Walnut Ave., Syracuse.	Syracuse, Nov. 14–17, 1916.
North Carolina	Mrs. Thomas W. Lingle, Davidson.	Mrs. M. L. Stover, Carolina Apartments, Wilmington.	Durham, May, 1917.
North Dakota	Minnie Jean Nielson, Valley City.	Mrs. J. E. Featherstone, Valley City.	Valley City, Oct. 10–13, 1916.

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XXIX.—STATE FEDERATIONS OF WOMEN'S CLUBS—Continued.

Name.	President.	Secretary.	Meeting.
Ohio	Mrs. George Zimmerman, 424 Birchard Ave., Fremont.	Mrs. Charles Halter, 1319 Birchard Ave., Fremont.	Dayton, Oct. 16–20, 1916.
Oklahoma	Mrs. Tom Hope, 1035 N. Walker St., Oklahoma City.	Mrs. W. H. Gallagher, 902 N. Second St., McAlester.	Woodward, November, 1917 (biennial).
Oregon	Mrs. Sarah A. Evans, 15 Keeler Apts., Portland.	Mrs. J. A. Pettit, 874 E. Tayler St., Portland.	
Pennsylvania	Mrs. Ronald P. Gleason, 947 Clay Ave., Scranton.	Mrs. H. C. Boden, 206 St. Mark's Sq., Philadelphia.	October, 1916.
Rhode Island	Mrs. Horace G. Bissell, East Greenwich.	Mrs. Edward K. Aldrich, 87 Lloyd Ave., Providence.	Kingston, June, 1917.
South Carolina	Mrs. J. L. Coker, jr., Hartsville.	Mrs. M. S. McKinnon, Hartsville.	Hartsville, spring of 1917.
South Dakota	Mrs. Zillah E. Wilson, State Normal, Aberdeen.	Mrs. Gertrude B. Gunderson, Vermilion.	Pierre, Oct. 3–5, 1916.
Tennessee	Mrs. George W. Denney, 504 Randolph St., Knoxville.	Mrs. T. P. Miller, Knoxville.	
Texas	Mrs. Fred Fleming, Dallas.	Mrs. H. B. Griffith, Dallas.	Sherman, Nov. 14, 1916.
Utah	Mrs. E. E. Corfman, 355 E. First North St., Provo.	Mrs. S. R. Callaway, Provo.	Provo, October, 1916.
Vermont	Mrs. R. E. Smith, White River Junction.	Mrs. Leonard Wheeler, White River Junction.	
Virginia	Helen Norris Cumming, 606 Cameron St., Alexandria.	Mrs. George T. Klipstein, 607 Prince St., Alexandria.	June 6–9, 1917.
Washington	Mrs. Solon Shedd, 300 Montgomery St., Pullman.	Mrs. Ira D. Cardiff, 302 Oak St., Pullman.	
West Virginia	Mrs. J. G. Cochran, Parkersburg.	Mrs. Fuller Glasscock, Morgantown.	Wheeling, Oct. 17–20, 1916.
Wisconsin	Mrs. D. O. Kinsman, Whitewater.	Mrs. A. W. Shelton, Rhinelander.	Milwaukee, Nov. 8–10, 1916.
Wyoming	Mrs. R. A. Morton, 319 W. 26th St., Cheyenne.	Mrs. D. M. Carley, 2404 Pioneer Ave., Cheyenne.	Sheridan, Oct. 4–6, 1916.

XXX.—MOTHERS' CONGRESSES.

The officers of the National Congress of Mothers and Parent-Teacher Associations are: President, Mrs. Frederic Schoff, Philadelphia, Pa.; secretary, Mrs. Arthur A. Birney, 910 Loan and Trust Building, Washington, D. C. The annual convention will be held in Washington, D. C., April, 1917.

BRANCHES.

Name.	President.	Secretary.	Meeting.
Alabama	Mrs. B. F. Hardeman, 404 Washington Ave., Montgomery.	Mrs. P. W. Hodges, 629 Monroe St., Montgomery.	
Arizona	Mrs. J. C. Norton, Phoenix.	Mrs. C. R. Howe, 1602 W. Monroe St., Phoenix.	
California	Mrs. H. N. Rowell, 3158 College Ave., Berkeley.	Mrs. W. F. Eschbacher, 1 Greenbank Ave., Piedmont.	May, 1917.
Colorado	Mrs. Fred Dick, 2755 W. 32d Ave., Denver.	Mrs. Lincoln Wilson, 2841 Wolff St., Denver.	Denver, Oct. 25–27, 1916.
Connecticut	Mrs. W. H. Dresser, Hartford.	Mrs. Geo. Brinton Chandler, Rocky Hill.	
Delaware	Mrs. Garrett S. Harrington, Harrington.	Mrs. Lorenzo T. Jones, Harrington.	Harrington, November, 1916.
District of Columbia.	Mrs. G. S. Rafter, 3105 16th St. NW.	Mrs. Leonard S. Doten, 1714 Euclid St. NW., Washington.	
Florida	W. N. Sheats, State superintendent, Tallahassee.[1]		
Georgia	Mrs. J. W. Rowlett, 186 E. Pine St., Atlanta.	Mrs. J. B. Baggarly, 2131 Broadway, Macon.	Fitzgerald.
Idaho	Mrs. J. K. Dickie, 1117 Jefferson St., Boise.	Mrs. Lucy B. Morton, Sunnyside.	
Illinois	Mrs. B. F. Langworthy, 254 Ashland Ave., River Forest.	Mrs. J. S. Mueller, 317 S. Cuyler Ave., Oak Park.	Bloomington, first week in May, 1917.
Indiana	Mrs. P. Zoercher, 68 Whittier Pl., Indianapolis.	Mrs. W. Carpenter, 946 West Drive, Woodruff Pl., Indianapolis.	Indianapolis, March, 1916.

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XXX.—Mothers' Congresses—Continued.

BRANCHES—Continued.

Name.	President.	Secretary.	Meeting.
Iowa	Mrs. A. O. Ruste, Charles City.	Mrs. H. H. Doolittle, Cedar Rapids.	Iowa City.
Kansas	Mrs. W. H. Jones, 315 Vine St., Leavenworth.	Mrs. James Cooper King, Wichita.	
Maine	Mrs. Delbert W. Adams, Augusta.	.....	
Maryland	Mrs. Edward Robinson, Albion Hotel, Baltimore.	.....	
Massachusetts	Mrs. Milton P. Higgins, 228 West St., Worcester.	Mrs. E. C. Mason, 8 Grove St., Winchester.	Worcester, Oct. 4–7, 1916.
Mississippi	Mrs. J. B. Lawrence, Jackson.	Mrs. Stephens L. Burwell, Lexington.	Hattiesburg, April, 1917.
Missouri	Mrs. Walter H. Jobe, 916 W. 34th St., Kansas City.	Mrs. George M. Siemens	St. Louis, April, 1917.
Montana	Mrs. T. C. Brockway, 301 Granite Ave., Butte.	Miss J. R. Faddin, Butte	Great Falls, spring, 1917.
New Hampshire	Mrs. A. H. Harriman, Laconia.	Mrs. James S. Smith, Avery Ct., Laconia.	
New Jersey	Mrs. W. Bechtel, Haddonfield.	Mrs. S. P. Leeds, Chalfonte Hotel, Atlantic City.	Upper Montclair, Nov. 10–11, 1916.
New Mexico	Mrs. John W. Wilson, Albuquerque.	Mrs. John Milne, 523 South High St., Albuquerque.	Santa Fe, Nov. 27.
New York	Mrs. Henry Osgood Holland, 108 Highland Ave., Buffalo.	Mrs. B. S. Cushman, 306 Elm St., Ithaca.	Binghamton, Oct. 10–13, 1916.
North Carolina	Mrs. W. N. Hutt, W. Raleigh.	Mrs. W. N. Hutt, W. Raleigh.	West Raleigh, Aug. 28–30, 1916.
North Dakota	Dr. Rudolph Acher, Valley City.	Mrs. George Drake	Nov. 15, 1916.
Ohio	Mrs. J. A. Smith, 1206 E. 86th St., Cleveland.	Mrs. F. A. Albrecht, 1220 E. 89th St., Cleveland.	Massillon, Oct. 5–6, 1916.
Oregon	Mrs. Geo. W. McMath, 1834 E. Morrison St., Portland.	Mrs. Lillian Newton, 290 E. 53d St., Portland.	Corvallis, Oct. 20–28, 1915.
Pennsylvania	Mrs. E. Q. Fothergill, 326 S. Linden Ave., Pittsburgh.	Miss M. S. Garrett, Belmont Ave., Philadelphia.	Pittsburgh, Oct. 27–29, 1915.
Rhode Island	Mrs. James Earle Cheesman, 79 Keene St., Providence.	Mrs. Ralph Clapp, 89 Oriole Ave., Providence.	
South Carolina	Mrs. Malcolm Woods, Marion[1]	.....	
South Dakota	Mrs. S. H. Scallin, Mitchell	Mrs. W. S. Hill, Mitchell	
Tennessee	Mrs. Eugene Crutcher, 817 Lischey Ave., Nashville.	Mrs. R. D. Murray, 1001 Meridian St., Nashville.	
Texas	Mrs. F. W. McAllister, 123 Slocum Pl., San Antonio.	Mrs. L. T. Worley, Gen. Delivery, San Antonio.	Beaumont, Oct. 31–Nov. 3, 1916.
Utah	Mrs. John E. Dooly, 506 East S. Temple St., Salt Lake City.	Mrs. J. M. Dart, 533 E. 2d So. St., Salt Lake City.	
Vermont	Mrs. Henry A. Harman, Rutland.	Mrs. C. V. H. Coan, 82 Church St., Rutland.	October, 1916.
Washington	Mrs. J. C. Todd, 501 Sheridan Ave., Tacoma.	Mrs. Wm. F. Dodge, 5201 So. I St., Tacoma.	North Yakima, May, 1917.
Wisconsin	Mrs. E. Hammett, 423 Niagara St., Sheboygan.	Miss E. Marshall, 40 Prospect Ave., Milwaukee.	Sheboygan.
Wyoming	Mrs. B. H. Hamilton, Greyhull.	.....	Greyhull, Nov. 5, 1916.

[1] Organizer.

XXXI.—Educational Periodicals.

List of American educational periodicals currently received by the library of the Bureau of Education.

[List of abbreviations: bm.=bimonthly; ir.=irregular; m.=monthly; q.=quarterly; sm.=semimonthly; w.=weekly.]

Agricultural Education Monthly. U. S. Department of Agriculture, Washington, D. C. m.
Alabama. *See* Educational Exchange.
American Education. 50 State Street, Albany (N. Y.) 10 nos.
American Journal of Care for Cripples. 3505 Broadway, New York. ir.
American Oxonian. Menasha (Wis.). q.
American Physical Education Review. Springfield (Mass.). 9 nos.
American Primary Teacher. 6 Beacon Street, Boston. 10 nos.

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American School. P. O. Box 134, Milwaukee. m.
American School Board Journal. 129 Michigan Street, Milwaukee. m.
American Schoolmaster. Ypsilanti (Mich.). 10 nos.
American Teacher. 225 Fifth Avenue, New York. 10 nos.
Arizona Teacher. Phoenix. 10 nos.
Arkansas Teacher. Conway. 10 nos.
Associate Teacher. Pierre (S. Dak.). 10 nos.
Atlantic Educational Journal. 19 West Saratoga Street, Baltimore. 10 nos.
Better Schools. Painesville (Ohio). m.
Boston Teachers News-Letter. Boston. 10 nos.
Bulletin of the Board of Education of the Methodist Episcopal Church, South. Nashville (Tenn.). q.
Business Educator. Columbus (Ohio). 10 nos.
California. *See* California Blue Bulletin; Music Student; Sierra Educational News; University of California Chronicle; Western Journal of Education.
California Blue Bulletin. Sacramento. q.
Catholic Educational Review. Washington, D. C. 10 nos.
Catholic School Journal. Milwaukee. 10 nos.
Child Labor Bulletin, 105 East Twenty-second Street, New York. q.
Child-Welfare Magazine. 227 South Sixth Street, Philadelphia. m.
Chinese Students' Monthly. Ashburnham (Mass.). 8 nos.
Christian Educator. Washington, D. C. 10 nos.
Christian Student. 150 Fifth Avenue, New York. q.
Classical Journal. University of Chicago Press, Chicago. 9 nos.
Classical Weekly. Barnard College, New York. w. from October to May.
Colorado. *See* Colorado-School Journal; Public Schools.
Colorado School Journal. Denver. 10 nos.
Columbia University Quarterly. New York. q.
Connecticut. *See* New Haven Teachers Journal.
Current Education. Philadelphia. 10 nos.
District of Columbia. *See* Agricultural Education Monthly; Catholic Educational Review; Christian Educator; Volta Review.
Education. 120 Boylston Street, Boston. 10 nos.
Education Bulletin. Trenton. 10 nos.
Educational Administration and Supervision. Warwick & York (Inc.), Baltimore. 10 nos.
Educational Bi-Monthly. Board of Education, Chicago. bm., except August.
Educational Bulletin. Santa Fe (N. Mex.). q.
Educational Conference. Whitewater (Wis.). bm.
Educational Exchange. Birmingham (Ala.). m.
Educational Foundations. 31-33 East Twenty-seventh Street, New York. 10 nos.
Educational Outlook. Cape Girardeau (Mo.). q.
Educational Review. Columbia University, New York. 10 nos.
Educator-Journal. 403 Newton Claypool Building, Indianapolis. m.
Elementary School Journal. University of Chicago Press, Chicago. 10 nos.
Elementary Teacher. Baltimore. 9 nos.
Engineering Education. Lancaster (Pa.). 10 nos.
English Journal. University of Chicago Press, Chicago. 10 nos.
Federation Herald. 301 Security Building, Chicago. q.
Florida School Exponent. Tallahassee. 10 nos.
Florida Schoolroom. Dade City. m.
Georgia. *See* High School Quarterly; School and Home.
Harvard Graduates' Magazine. Boston. q.
Hawaii Educational Review. Honolulu. 10 nos.
High School Quarterly. Athens (Ga.). q.
History Teacher's Magazine. McKinley Publishing Company, Philadelphia. 10 nos.
Idaho Bulletin of Education. Boise. q.
Illinois. *See* Classical Journal; Educational Bi-Monthly; Elementary School Journal; English Journal; Federation Herald; Illinois Teacher; Journal of the Association of Collegiate Alumnæ; Journal of the National Education Association; Manual Training Magazine; Practical School Journal; Religious Education; School and Home Education; School Century; School News and Practical Educator; School Review; School Science and Mathematics; University Record.
Illinois Teacher. Urbana. 10 nos.
Immigrants in America Review. 20 West Thirty-fourth Street, New York. q.
Indiana. *See* Educator-Journal; Teacher's Journal.
Industrial-Arts Magazine. Bruce Publishing Company, Milwaukee. m.
Inter-Mountain Educator. Missoula (Mont.). 10 nos.
Iowa. *See* Midland Schools; School Music.
Johns Hopkins Alumni Magazine. Baltimore. q.
Journal of Education. 6 Beacon Street, Boston. w.

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Journal of Educational Psychology. Warwick & York (Inc.), Baltimore. 10 nos.
Journal of Geography. Madison (Wis.). 10 nos.
Journal of Home Economics. 1211 Cathedral Street, Baltimore. m.
Journal of the Association of Collegiate Alumnæ. University of Chicago Press, Chicago. q.
Journal of the National Education Association. University of Chicago Press, Chicago. 10 nos.
Kansas. *See* Kansas Teacher; Teaching; Western School Journal.
Kansas Teacher. Topeka. m.
Kentucky. *See* Kentucky High School Quarterly; Southern School Journal.
Kentucky High School Quarterly. Lexington. q.
Kindergarten and First Grade. Springfield (Mass.). 10 nos.
Kindergarten-Primary Magazine. Manistee (Mich.). 10 nos.
Louisiana. *See* Louisiana School Work; Teachers Forum.
Louisiana School Work. Baton Rouge. 10 nos.
McEvoy Magazine. Brooklyn (N. Y.). q.
Manual Training Magazine. Peoria (Ill.). m.
Maryland. *See* Atlantic Educational Journal; Educational Administration and Supervision; Elementary Teacher; Johns Hopkins Alumni Magazine; Journal of Educational Psychology; Journal of Home Economics.
Massachusetts. *See* American Physical Education Review; American Primary Teacher; Boston Teachers News-Letter; Chinese Students' Monthly; Education; Harvard Graduates' Magazine; Journal of Education; Kindergarten and First Grade; Pedagogical Seminary; Popular Educator; Primary Education; School Arts Magazine.
Mathematics Teacher. Lancaster (Pa.). q.
Michigan. *See* American Schoolmaster; Kindergarten-Primary Magazine; Moderator-Topics; Van Leuven Browne National Magazine.
Middle-West School Review. Omaha (Nebr.). m.
Midland Schools. Des Moines. 10 nos.
Mind and Body. Milwaukee. 10 nos.
Minnesota. *See* Minnesota State Normal Schools Quarterly Journal; School Education; Southern Minnesota Educator.
Minnesota State Normal Schools Quarterly Journal. Minneapolis. q.
Mississippi Educational Advance. Jackson. 10 nos.
Missouri. *See* Educational Outlook; Missouri School Journal; Rural School Messenger.
Missouri School Journal. Jefferson City. m.
Moderator-Topics. Lansing (Mich.). w. except July and August.
Modern Language Journal. 68th and Park Avenue, New York. 8 nos.
Monatshefte für Deutsche Sprache und Pädagogik. Milwaukee. 10 nos.
Montana. *See* Inter-Mountain Educator.
Music Student. Los Angeles (Cal.). m.
Music Supervisors' Journal. Madison (Wis.). q.
National Association of Corporation Schools Bulletin. Irving Place and Fifteenth Street, New York. m.
Nature-Study Review. Ithaca (N. Y.). 9 nos.
Nebraska. *See* Middle-West School Review; Nebraska Teacher.
Nebraska Teacher. Lincoln. 10 nos.
New Haven Teachers Journal. New Haven (Conn.). bm.
New Jersey. *See* Education Bulletin; School News; Training School Bulletin; Vocational Guidance Bulletin.
New Mexico. *See* Educational Bulletin; New Mexico Journal of Education.
New Mexico Journal of Education. Santa Fe. 10 nos.
New York. *See* American Education; American Journal of Care for Cripples; American Teacher; Christian Student; Classical Weekly; Columbia University Quarterly; Educational Foundations; Educational Review; Immigrants in America Review; McEvoy Magazine; Modern Language Journal; National Association of Corporation Schools Bulletin; Nature-Study Review; Normal Instructor and Primary Plans; Physical Training; Playground; School; School and Society; School Bulletin; Storytellers' Magazine; Teachers College Record; Teacher's Monographs; Ungraded; Vocationist.
Normal Instructor and Primary Plans. Dansville (N. Y.). 10 nos.
North Carolina. *See* North Carolina Education; North Carolina High School Bulletin; Training School Quarterly.
North Carolina Education. Raleigh. 10 nos.
North Carolina High School Bulletin. Chapel Hill. q.
Northwest Journal of Education. Seattle. 10 nos.
Ohio. *See* Better Schools; Business Educator; Ohio Educational Monthly; Ohio History Teachers' Journal; Ohio Teacher; Rural Educator; School Index.
Ohio Educational Monthly. Columbus. m.
Ohio History Teachers' Journal. Columbus. q.
Ohio Teacher. Columbus. m.
Oklahoma Home and School Herald. Oklahoma City. 10 nos.
Oklahoma Journal of Education. Oklahoma City. w. except June, July, and August.

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Optimist. Scranton (Pa.). 10 nos.
Oregon Teachers' Monthly. Salem. 10 nos.
Pedagogical Seminary. Worcester (Mass.). q.
Pennsylvania. *See* Child-Welfare Magazine; Current Education; Engineering Education; History Teacher's Magazine; Mathematics Teacher; Optimist; Pennsylvania School Journal; Pittsburgh School Bulletin; Psychological Clinic; School Progress.
Pennsylvania School Journal. Lancaster. m.
Philippine Craftsman. Manila. 9 nos.
Philippine Education. Manila. 10 nos.
Physical Training. 124 East Twenty-eighth Street, New York. 10 nos.
Pittsburgh School Bulletin. Pittsburgh. 10 nos.
Playground. 1 Madison Avenue, New York. m.
Popular Educator. 50 Bromfield Street, Boston. 10 nos.
Practical School Journal. Litchfield (Ill.). 10 nos.
Primary Education. 50 Bromfield Street, Boston. 10 nos.
Progressive Teacher. Nashville. 10 nos.
Psychological Clinic. Woodland Avenue and Thirty-sixth Street, Philadelphia. 9 nos.
Public Schools. Denver. 10 nos.
Quarterly Journal of Public Speaking. Menasha (Wis.). q.
Religious Education. 332 South Michigan Avenue, Chicago. bm.
Rural Educator. Columbus (Ohio). bm.
Rural School Messenger. Kirksville (Mo.). 9 nos.
School. 154 Fifth Avenue, New York. w. except August.
School and Home. Atlanta (Ga.). m.
School and Home Education. Bloomington (Ill.). 10 nos.
School and Society. Garrison-on-Hudson (N. Y.). w.
School Arts Magazine. 120 Boylston Street, Boston. 10 nos.
School Bulletin. Syracuse (N. Y.). m.
School Century. Oak Park (Ill.). 10 nos.
School Education. Minneapolis. 10 nos.
School Index. Cincinnati. w.
School Music. Keokuk (Iowa). bm. except July.
School News. New Egypt (N. J.). m.
School News and Practical Educator. Taylorville (Ill.). 11 nos.
School Progress. School Progress League, Philadelphia. ir.
School Review. University of Chicago Press, Chicago. 10 nos.
School Science and Mathematics. Mount Morris (Ill.). 9 nos.
Sierra Educational News. San Francisco. 10 nos.
South Carolina. *See* Southern School News.
South Dakota. *See* Associate Teacher; South Dakota Educator.
South Dakota Educator. Mitchell. 10 nos.
Southern Minnesota Educator. Fairmont. 9 nos.
Southern School Journal. Lexington (Ky.). m.
Southern School News. Columbia (S. C.). 9 nos.
Southern Workman. Hampton (Va.). m.
Storytellers' Magazine. 80 Fifth Avenue, New York. m.
Teachers College Record. Teachers College, Columbia University, New York. bm. except July.
Teachers Forum. New Orleans. 9 nos.
Teacher's Journal. Marion (Ind.). m.
Teacher's Monographs. 16 Court Street, Brooklyn (N. Y.). 8 nos.
Teaching. Emporia (Kans.). sm.
Tennessee. *See* Bulletin of the Board of Education of the Methodist Episcopal Church, South; Progressive Teacher.
Texas School Journal. Dallas. 10 nos.
Training School Bulletin. Vineland (N. J.). 10 nos.
Training School Quarterly. Greenville (N. C.). q.
Ungraded. 500 Park Avenue, New York. 9 nos.
University of California Chronicle. Berkeley. q.
University Record. University of Chicago Press, Chicago. q.
Utah Educational Review. Salt Lake City. 10 nos.
Van Leuven Browne National Magazine. Detroit (Mich.). m.
Virginia. *See* Southern Workman; Virginia Journal of Education; Virginia State Teachers' Association Quarterly.
Virginia Journal of Education. Richmond. 10 nos.
Virginia State Teachers' Association Quarterly. Richmond. q.
Vocational Guidance Bulletin. Nutley (N. J.). m.
Vocationist. Oswego (N. Y.). q.
Volta Review. Washington, D. C. m.

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Washington. *See* Northwest Journal of Education.
West Virginia School Journal and Educator. Charleston. m.
Western Journal of Education. 324 Phelan Building, San Francisco. m.
Western School Journal. Topeka. m.
Western Teacher. Milwaukee. 10 nos.
Wisconsin. *See* American Oxonian; American School; American School Board Journal; Catholic School Journal; Educational Conference; Industrial-Arts Magazine; Journal of Geography; Mind and Body; Monatshefte für Deutsche Sprache und Pädagogik; Music Supervisors' Journal; Quarterly Journal of Public Speaking; Western Teacher; Wisconsin Journal of Education.
Wisconsin Journal of Education. Madison. 10 nos.
Wyoming School Journal. Laramie. 10 nos.

XXXII.—Foreign Countries—Chief Officers of Education, 1914–15.

Countries.	Cities.	Chief officers of education.
EUROPE.		
Austria-Hungary:		
Austria	Vienna	Minister of instruction.
Hungary (including Croatia and Slavonia).	Budapest	Minister of education and public worship.
Belgium	Brussels	Minister of science and arts.
Bulgaria	Sophia	Minister of public instruction.
Denmark	Copenhagen	Minister of public instruction and ecclesiastical affairs.
France	Paris	Minister of public instruction and fine arts.
German Empire:		
Prussia (Kingdom)	Berlin	Minister of ecclesiastical and educational affairs.
Bavaria (Kingdom)	Munich	Minister of worship and instruction.
Saxony (Kingdom)	Dresden	Do.
Wurttemberg (Kingdom)	Stuttgart	Do.
Baden (Grand Duchy)	Karlsruhe	Minister of worship and public instruction.
Hesse (Grand Duchy)	Darmstadt	President of department of schools.
Mecklenburg-Schwerin (Grand Duchy)	Rostock	Minister of justice.
Saxe-Weimar (Grand Duchy)	Weimar	Chief of department of worship and instruction.
Mecklenburg-Strelitz (Grand Duchy)	Neu-Strelitz	Minister of justice, ecclesiastical affairs, and instruction.
Oldenburg (Grand Duchy)	Oldenburg	Chief of department of justice, worship, and instruction.
Brunswick (Duchy)	Brunswick	President of commission of instruction.
Saxe-Meiningen (Duchy)	Meiningen	Chief of department of justice, worship, and instruction.
Saxe-Altenburg (Duchy)	Altenburg	Director general of schools.
Saxe-Coburg-Gotha (Duchy)	Coburg	President of department of worship, and public instruction.
Anhalt (Duchy)	Dessau	President of department of instruction.
Schwarzburg-Sondershausen (Principality).	Sondershausen	Chief of department of worship and instruction.
Schwarzburg-Rudolstadt (Principality).	Rudolstadt	
Waldeck (Principality)	Arolsen	President of consistory.
Reuss, senior line (Principality)	Greiz	Inspector general of schools.
Reuss, junior line (Principality)	Gera	President of department of worship and instruction.
Schaumburg-Lippe (Principality)	Buckeburg	President of consistory.
Lippe (Principality)	Detmold	Head of the consistory.
Lubeck (Free City)		Chairman senate committee on public instruction.
Bremen (Free City)		President of commission of worship and instruction.
Hamburg (Free City)		Do.
Alsace-Lorraine (Imperial Territory)		Director general of public instruction.
Great Britain and Ireland:		
England and Wales	London	President of board of education.
Scotland	Edinburgh	Secretary of the committee of council on education.
Ireland	Dublin	Commissioners of national education in Ireland.
Greece	Athens	Minister of public instruction.
Italy	Rome	Do.
Malta	Valletta	Director of public instruction.
Netherlands	The Hague	Minister of interior.
Norway	Christiania	Minister of public instruction and ecclesiastical affairs.
Roumania	Bucharest	Do.

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EUROPE		
Russia		
Finland		
Servia		
Spain		
Sweden		
Switzerland		
ASIA		
China		
India:		
British Provinces		
Japan		
AFRICA		
Egypt		
Cape of Good Hope		
Natal		
Orange Free State		
Tunisia		
Mauritius		
NORTH AMERICA		
Canada:		
Alberta		
British Columbia		
Manitoba		
New Brunswick		
Nova Scotia		
Ontario		
Prince Edward Island		
Quebec		
Saskatchewan	Regina	
Newfoundland	St. John's	Ministry of education
Mexico	Mexico	Superintendent of Education boards Secretary for
WEST INDIES		
Cuba	Havana	
Jamaica	Kingston	
Trinidad	Port of Spain	
CENTRAL AMERICA		
Costa Rica	San Jose	
Guatemala	Guatemala	
Honduras, British	Belize	
Honduras, Republic	[illegible]	
Nicaragua	[illegible]	
Salvador		
Panama		
SOUTH AMERICA		
Argentina		
Bolivia		

[1] Address for [illegible]
[2] The chief [illegible]

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DEPARTMENT OF THE INTERIOR
BUREAU OF EDUCATION

BULLETIN, 1916, No. 44

THE DISTRICT AGRICULTURAL SCHOOLS OF GEORGIA

BY

C. H. LANE AND D. J. CROSBY
DEPARTMENT OF AGRICULTURE

WASHINGTON
GOVERNMENT PRINTING OFFICE
1916

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LETTER OF TRANSMITTAL.

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION,
Washington, October 8, 1915.

SIR: In most of the States some attempt is made to teach agriculture and rural domestic economy to boys and girls of high school age and over whose advancement in the ordinary school subjects is of high school grade or less. In some States the attempt has been made to do this work only in the regular county, township, district, and village high schools, modifying or adding to their traditional courses of study as has seemed necessary to adapt them to this purpose. In other States separate schools have been established in which these subjects are made the center of the course of study, and all other subjects are organized around them or are counted merely incidental. There is still doubt among thoughtful educators as to which plan is the best and as to which should be adopted as the norm. There are those who believe that all rural schools should be so readjusted and redirected as to make agriculture and rural economic subjects the central subjects in their course of study and preparation for intelligent and successful rural life their chief aim. These people are of the opinion that all the children of any community should be educated in the same schools, or there will be great danger of social cleavage along vocational lines. Others hold that the best results in these subjects can be had only in schools organized and supported for this special purpose. Whatever may be done in the ordinary high schools, they believe there should be separate schools of agriculture and home economics at least for the large number of boys and girls who for many reasons can not conveniently attend the ordinary schools.

The separate high school of agriculture and rural domestic economics has been tried out on a larger scale in Georgia than elsewhere in this country, with one State-supported school in each congressional district. These schools, opened in 1907 and 1908, have now been in session long enough to make the history of their work and their results worthy of careful study.

The manuscript transmitted herewith embodies the results of such a study made at first hand by C. H. Lane and D. J. Crosby, of

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the Department of Agriculture, and is all the more valuable because Mr. Crosby was consulted about the organization of the schools and watched carefully their earliest development. I recommend that the manuscript be published as a bulletin of the Bureau of Education.

Respectfully submitted.

P. P. CLAXTON,
Commissioner.

The SECRETARY OF THE INTERIOR.

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THE DISTRICT AGRICULTURAL SCHOOLS OF GEORGIA.

I. HISTORICAL.

In accordance with the recommendations of the late Gov. J. M. Terrell, the General Assembly of Georgia, at its session in the summer of 1906, passed a bill providing for the establishment and maintenance of one industrial and agricultural school in each of the 11 congressional districts of the State. These schools were to be branches of the "State college of agriculture, a department of the University of Georgia," and the general board of trustees of the university was charged by law to "exercise such supervision as in their judgment may be necessary to secure unity of plan and efficiency in said schools."

The governor, to whom authority was given to appoint trustees for the schools and, together with the trustees, to receive donations of land, buildings, and money for the schools, and to locate them, called into conference Prof. J. S. Stewart, of the University of Georgia, and Mr. D. J. Crosby, of the United States Office of Experiment Stations, to assist in preparing a course of study, and Mr. W. G. Smith, of the United States Bureau of Soils, to assist in selecting suitable farms for the schools.

Meetings were held in each district to discuss the proposed curriculum and the general plans for the schools, and then each county was asked to bid for the location of the school in its respective district. Much interest was manifested in the new schools, and in nearly every district there was sharp competition between several localities for the location of the school. The bids were liberal, running from $25,000 in cash and 300 acres of land up to $60,000 in cash, 300 acres of land, free electric lights, water for five years, and sewage disposal. The total value of the accepted bids was estimated at about $850,000.[1] They included $439,000 in cash, one building valued at $14,000, and 3,214 acres of land.

The following table lists the accepted bids.

[1] The rejected bids amounted to fully as much again.

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Bids for location of agricultural schools.

District.	Location.	Cash promised.	Acres promised.	Other donations promised.
First	Statesboro	$60,000	300	Electric lights, water for five years, sewerage.
Second	Tifton	60,000	300	Do.
Third	Americus	40,000	300	Do.
Fourth	Carrollton	30,000	300	Do.
Fifth	Monroe	31,000	250	Do.
Sixth	Barnesville	51,000	300	Do.
Seventh	Powder Springs	Academic Bldg, boys' dormitory.	240	
Eighth	Madison	40,000	300	Do.
Ninth	Clarksville	25,000	300	
Tenth	Granite Hill	45,000	250	
Eleventh	Douglas	55,000	300	Do.

In most of the districts the school sites were selected in the fall of 1906 or early in 1907, so that building operations could go forward promptly. An architect was employed to prepare plans for the academic buildings and the boys' and girls' dormitories, and a landscape gardener assisted in preparing plans for the grounds and in selecting sites for the buildings.

The list of schools, as finally located, with the names of principals, is as follows:

District agricultural schools.

District.	Location.	Principal.
First	Statesboro	F. M. Rowan.
Second	Tifton	S. L. Lewis.
Third	Americus	J. M. Collum.
Fourth	Carrollton	J. H. Melson.
Fifth	Monroe	J. H. Walker.
Sixth	Barnesville	W. H. Maxwell.
Seventh	Powder Springs	H. R. Hunt.
Eighth	Madison	W. G. Acree.
Ninth	Clarkesville	M. C. Gay.
Tenth	Granite Hill	J. T. McGee.
Eleventh	Douglas	J. W. Powell.

One of the schools, that in the eleventh district, had its buildings completed in time to open in the fall of 1907; eight other schools opened in the early months of 1908; and the remaining two began work in the fall of 1908.

While provision was made in the organic act of these schools for the acceptance of donations of land, money, and other property needed in equipping them, there was nothing in the act to prevent the use of the maintenance fund for the erection of buildings and the purchase of equipment, and some of the schools for which inadequate funds had been donated have been compelled to draw heavily upon their maintenance funds for improvements. The maintenance funds came at first entirely from fees derived from the inspection of fertilizers, oils, and other articles subject to inspection by the State

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department of agriculture, and the first year amounted to about $6,000 for each school, but as the needs of the schools increased the general assembly supplemented their funds and in 1910 gave them an annual appropriation of $10,000 each.

The agricultural schools are intermediate between the rural elementary schools and the State college of agriculture. In the beginning one course of study was outlined for all of the schools, and it was expected that only such pupils as had finished the sixth grade in the elementary schools would be admitted regularly to them, but from a desire to secure large numbers of students and to meet the varying needs of the several districts the curricula were soon modified considerably, preparatory courses were introduced, and in some cases graduation requirements were considerably relaxed. Considered as a unit in the educational system of the State, the schools did not fully articulate either with the common schools below or with the State college of agriculture above.

To remedy this condition, a committee was appointed from the State college of agriculture to revise the course of study and make other recommendations for the schools. The committee met with the principals of the agricultural schools at Athens on April 20, 1912, and its recommendations were discussed and adopted at this meeting. The recommendations of the committee demanded adherence to the letter of the law concerning completion of the sixth grade for entrance, elimination of preparatory courses, attention increased to laboratory work, and the teaching of natural science with special reference to applications in agriculture and home economics. In addition it was recommended that the faculty of the agricultural schools should be made up as follows:

(1) The principal, who, the committee thinks, should be an educator with an agricultural training.
(2) A teacher of agriculture.
(3) A teacher of science, who should be a man capable of assisting the professor of agriculture.
(4) A teacher of mathematics and farm mechanics.
(5) A teacher of English and history.
(6) A teacher of domestic science.
(7) A matron.

It was agreed that there should be an annual meeting of the principals at the State college to discuss the needs of the schools. In 1914 the joint committee from the agricultural college and the principals further changed the course of study so that it would be based upon the completion of the State seven years' common-school course, and cover four years, students graduating with 16 units.

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SUMMARY OF THE GEORGIA AGRICULTURAL SCHOOLS.

There are 11 district agricultural schools in Georgia, 1 in each congressional district.

The law establishing these schools was passed in 1906, and they were opened to students in 1907 and 1908.

The first year in these schools corresponds to the first year of the high school, based upon a seven-year common school.

All schools admit students from outside their respective districts.

About 85 per cent of the pupils are boarding, and are, as a rule, from one to three years older than pupils in corresponding classes in town high schools.

The course of study covers a period of four years of nine months each.

The schools are coeducational. Boys are admitted at 14 years of age; girls at 13 years of age.

Each school receives support from the State, amounting to $10,000 a year.

The total income from the farms in 1914 was nearly $44,521.

In all, $169,000 has been spent in improving the plants since the schools opened, up to and including the year 1912.

The salary lists of the schools vary from $5,287 to $7,269.

The number of acres in cultivation is approximately 1,021.

The farm animals included 34 mules, 15 horses, 91 cows, 508 hogs, and poultry, valued at $20,952. Farm tools were valued at $13,000.

Board, room, light, and heat cost each student from $6.40 to $8 a month.

By turning over garden truck and farm crops to the boarding departments, all of the schools make the boarding halls and dormitories self-supporting.

Books cost from $5 to $10 a year for each pupil.

Students receive 10 cents an hour for productive labor, and are required to do 20 to 36 hours' work a month.

Military training is a feature of two of the schools.

Nearly all of the schools have introduced piano instruction for girls.

Each girl is required to take one year's work in agriculture and the four years' course in home economics.

The State college of agriculture issues an annual bulletin of from 30 to 40 pages covering the work of the schools for the year. The sixth bulletin is now from the press.

Much attention has been given of late to the purchase of registered stock, in order to improve that of the schools and to be of service to the farmers. In some cases the farmers of the area have clubbed together to purchase blooded males for this school.

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In every case the schools rely upon their shops to do the repairing, plumbing, wiring, carpentry, concrete structures, and other needed work without calling upon outside help. Thus the shopwork grows primarily out of the needs of the school and teaches the boys to be self-reliant on their own farms.

The State college places at each of the schools a farm demonstrator, who directs the farm demonstrations in the neighboring territory and certain plats at the school. This extends the influence of the school over a larger area.

Five of the plants are now used in the summer for two weeks teachers' institutes for rural teachers in the adjoining counties, under the direction of the State school supervisors. This is being extended to other schools. In the 1915 bulletin the following statement regarding the special work of the schools appears:

THE SPECIFIC WORK OF THE SCHOOL.

The schools should stand clearly in the eyes of all the State for a definite type and standard of education, open to all who wish this type and standard and closed to all who do not wish it or who do not reach its requirements. The schools are not designed to provide education for all ages and all grades. If the students wish a classical education or a purely literary education, they should go elsewhere. If they want a common-school education, this is not the place for them. If a boy wants vocational training for a life on the farm, together with a good high-school training in English, mathematics, history, and the sciences, here is the school designed for him. If a girl wishes a good literary and scientific high-school education, with training in the domestic arts and sciences, she will find that the State has provided well for her here. She may also prepare for teaching. None of these schools should make the mistake of trying to provide room and teaching force to teach everybody who wants to go away from home to school. It is not mere numbers that are wanted in these schools, but efficient training of all in the district who want this type of scientific industrial training.

The training should be so efficient and distinctive that all who come in contact with the students will be convinced of the thoroughness and value of the training. Thus only can we justify the expenditure of so large a sum of money. They are not ordinary schools, and principals should not hesitate to decline pupils too young or too poorly prepared to enjoy the opportunities offered. The State is paying $2,500,000 for the education of these. The schools are distinctive. They must offer better training than any other schools for those who wish special scientific and industrial, agricultural, and home-science training.

II. SCHOOL PLANT AND EQUIPMENT.

DESCRIPTION OF A TYPICAL SCHOOL.

Since all the district agricultural schools were established under similar conditions, the buildings were designed by the same architect, the management and control rest in the same authority, and the course of study is the same, a description of one fits quite closely all. The school to be described here is selected because it is fairly typical. It is the Second District Agricultural School, located 2 miles north

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of Tifton, a town with a population of over 3,000, on a well-drained, fertile tract of land containing 315 acres. Three railroads pass through Tifton—The Georgia Southern & Florida, the Atlantic Coast Line, and the Atlanta, Birmingham & Atlantic. These give good train schedules in six directions. The Georgia Southern & Florida passes in front of the school, and two trains stop at the school each day. The campus has just enough slope to give it good drainage. Walks, driveways, lawns, a flower garden, and many live oaks and other shade trees give it a very attractive and pleasing appearance.

There were 10 instructors at the school in 1915. The principal is a graduate of the University of Georgia and of Cornell University and teaches biology and agriculture. A graduate of the Georgia School of Technology teaches geometry, chemistry, and mechanics. A graduate of Peabody Normal College teaches agriculture, physics, and geography. A graduate of the North Carolina Normal School, who has had special work at Columbia University, teaches domestic science and domestic arts. A graduate of the Westchester Normal School, who has had additional work at Columbia University, teaches the regular academic subjects and gives some instruction in elementary pedagogy and methods to girls preparing to teach in elementary schools. Other members of the teaching corps are graduates of Shorter College, Noyes School of Oratory, and Georgia Normal and Industrial College. The farm superintendent is a graduate of the Second District State Agricultural School. There is also a secondary who serves as librarian of the school.

Buildings.—The gift of the town and community in securing this school was 315 acres of land valued at $30 an acre and $60,000 cash, together with electric lights, telephone service, water and sewage system, all free of cost for 10 years. The land is now worth $100 per acre.

There are three large two-story buildings of brick and several smaller wooden structures.

The academic building cost $16,500. On the first floor are two classrooms, two large laboratory rooms, a large library, a large study hall, two offices, two cloakrooms, and two lavatories. On the second floor is the auditorium, with a seating capacity of 400, and two large recitation rooms connected with it by folding doors.

The girls' dormitory cost $16,000. It has 36 bedrooms, a large reception hall, 8 bath rooms, 12 toilets, and 4 linen closets. Each bedroom is designed for two students. It is furnished with an enameled iron bed, mattress, dresser, table, and chairs. The home economic department occupies the rear wing on the ground floor of this building. Here are found the kitchen, the model dining room,

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pantries, a sewing room, and a sitting room. The dormitory is thoroughly screened, the work being done by the students.

The boys' dormitory, which cost $16,000, is similar to the dormitory for the girls, except that the section corresponding to the home economics department is occupied by bedrooms. In this dormitory a shower bath with both cold and hot water has been installed by the boys at a cost of about $25.

The dining hall, a wooden building located to the rear of the academic building, was constructed at a cost of $2,800. It has a commodious dining room, cloakrooms, dish room, cookroom, pantry and refrigerator room. All doors and windows and the veranda are screened. Under the dining hall is a well-lighted dairy room with cement floor and tank. The dairy is furnished with two separators, barrel churn, and other equipment necessary for a small dairy.

The other buildings are a good cook's house, a model dairy barn and silo, a horse barn, a shop building, tool sheds, cattle shed, mill house, cotton house, and poultry houses.

The farm.—The farm lies within the wire grass belt of the Coastal Plain Region. Nearly all the soil on the farm is of the very popular Tifton sandy loam type. One hundred and four acres of the land is in cultivation, and nearly all of this is now free of stumps. About 40 acres of the timbered land is to be planted to Bermuda grass and Lespedeza clover, both of which grow well under the thin shade of the tall pines.

All the work on the farm is done by the students under the supervision of the farm superintendent and the instructors in agriculture and mechanics. Every student is required to work 20 hours per month, the girls about the buildings and the boys at farm work. Many boys make a large part of their expenses by doing additional work, for which 10 cents an hour is paid. The schedule is arranged so that two classes recite in the morning and two in the afternoon. Five 40-minute periods are devoted to class work for each class. The classes not at recitation are at shop practice, at home economics class, in the field, or in the study hall. No student is taken from the classroom to do other work. It is the rule of the school to have a graduate of the school as farm superintendent. This rule has worked most satisfactorily. The farm superintendent and members of the faculty work along with the students as much as time permits. During the summer vacation five students are kept to do the necessary work on the farm and about the school; they are paid $20 per month and board.

It is the purpose of the school to grow on a small scale a great variety of crops for experimental and demonstrative work and to grow on a larger scale such products as will be most profitable. To this end a field of 21 acres has been set aside permanently for experimental

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and demonstrative work and for orchard and garden, while the rest of the cultivated land is used for the general farm crops. Oats, hay, corn, velvet beans, peanuts, and cotton are the principal crops. In the fall of 1914 all except one acre was planted to some growing crop. Seven acres were planted in wheat, a few acres were given over to grazing and experimental crops, and the remainder was in oats. It was planned to harvest a few acres of oats in May and then sow corn and cowpea hay, since in this section corn planted about the 1st of June usually does better than the earlier planting.

The school produces its own milk and butter. It has a herd of grade Jersey cows, grade Jersey heifers, and one registered Jersey bull of excellent pedigree. The school has always raised a lot of hogs—Berkshires, Tamworths, and Duroc-Jerseys. Pastures are being made, and this feature of the farm will doubtless receive special emphasis in the future.

Fruits and garden.—During February, 1911, the students set out an orchard of 4 acres. This work was planned and largely done by the third year students in horticulture. There are 16 varieties of peaches, 10 of pears, 9 of plums, 4 of apples, 1 of cherries, 2 of apricots, 4 of quinces, 4 of grapes, 6 of Japanese persimmons, 1 of English walnuts, 15 of pecans, 4 of currants, 3 of figs, 5 of blackberries, 2 of raspberries, and 2 of strawberries. Large quantities of the fruit are canned and preserved for use in the dining hall.

Gardening is receiving considerable attention and large quantities of vegetables are supplied to the boarding department. The climate and soil are especially adapted to winter and spring gardening.

Experiments.—Some plat work is done each year. In 1914 10 one-tenth-acre plots were planted to various legumes and other winter crops to test their adaptability to this soil and climate and the value of lime and inoculation. Ten varieties of wheat were tested on twentieth-acre plots. Other tests included one to find out the proper quantity of oats to plant per acre and a fertilizer test with tomatoes, conducted under the direction of the State College of Agriculture.

Farm machinery.—The school is excellently equipped with farm tools. There are walking cultivators, riding cultivators, manure spreader, mowing machine, hay rakes, grain binder, grain drills, planters, distributors, two-horse turning plows, one-horse turning plows, middle burster, four-horse Spalding disk plow, two-horse disk plow, disk harrow, weeder, stalk cutter, silage cutter, horse clippers, drag, hand tools, etc.

Farm mechanics.—The work in farm mechanics is intensely practical. All boys do 10 hours' work per month in this department and some work longer. The boys do the plumbing, repairing, and carpentry work about the school and farm. They make furniture, some for the school, some for their homes, and some to sell. One year

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they made a miniature model farm house, together with the necessary furniture, and the girls furnished it throughout with home-made cotton goods. This was sent to the meeting of the State federation of women's clubs and to the State fair and attracted considerable attention. The main purpose in the farm mechanics course is to give practice and training in those processes that are of most direct value to farmers. The shop has hand tools, gasoline engine, planer. band saw, rip saw, cut-off saw, anvil, forge, and a few other tools. Near the shop is the millhouse, where the boys have practice in grinding for both the school and the community. There is a grist mill and feed chopper whereby corn meal, grits, whole wheat flour, chopped corn and cob, and chopped corn, cob and shuck are made. The wood saw and cane mill are also run by the gasoline engine.

Laboratories and library.—The physical and chemical laboratories are in one room. The chemical laboratory is fairly well equipped for a high school, but the physical apparatus is meager. The agricultural laboratory is fairly well equipped. Much practical work is done outside the laboratory. All boys are required to know how to milk, to plow, and to do other farm work. The boys are taught to hitch and unhitch and groom horses and later are required to follow these instructions and always to put harness and wagons and other farm tools in proper place under shelter. The students mix all the fertilizers used on the farm and spray all the fruit trees. They assist in the experimental work and in the field selection of seed. They visit other farms and study their management. They judge live stock both at home and on nearby farms.

The home economics department is furnished with five sewing machines, sewing tables, dress form, wood stove with hot-water system, oil stove, cooking desks, individual cooking utensils, and model dining room suit.

The library contains 550 volumes of well selected books. It is furnished with reading tables and magazine racks made by students. In the library are found the daily newspapers, several county papers, farm papers and magazines.

Student activities.—The students have two literary societies that hold weekly meetings. Public entertainments are given from time to time; there are prize-speaking contests and championship debates between the societies and with other schools. The school sends contestants in literary and athletic events to the district high-school meets. Athletics receive encouragement, and are directed by members of the faculty. The boys play football, baseball, and tennis and do track work. The girls play tennis and other games.

The girls have a Y. W. C. A. organization and hold weekly meetings. All students go to Sunday school in Tifton or attend a class

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taught by a member of the faculty. Students usually go to church in Tifton.

Expenses and other information.—Board, laundry, lights, and fuel cost $12 per month. This is paid in advance. Each student is required to do a minimum of 20 hours' work per month, and for this work a credit of 10 cents an hour is given on the next month's board. This makes the cost $10 or less after the first month, and at the close of the year a rebate is given for the work done the last month. Many work enough to pay half their expenses, and a few pay their entire expenses by work. On entrance, boarding pupils pay a fee of $1.50 for repairs. Local students pay $2 at entrance in the fall and $2 in the spring—this fee to go to the upkeep of the buildings and grounds. The local students are not required to work at the school if they work at home. The girls pay a domestic science fee of $2.50. Music and expression cost $3 per month. Piano rent is 50 cents per month. Books and stationery cost $4 to $8 per year. The boys do not wear uniforms, but the girls do. Uniform materials sufficient for the year cost $10.12. An additional suit for winter costs $12.50.

At entrance boys must be at least 14 years of age and girls 13. Applicants are required to have finished the seventh grade of the rural schools, but mature students without this preparation may be admitted at the discretion of the principal. Considerable attention is paid to practical work, and candidates for admission who are interested in literary work alone are encouraged to go elsewhere.

The average age of the students has been 18½ years for boys and 16½ years for girls. One year an inquiry among the boys disclosed the fact that 64 per cent intended to be farmers, 13 per cent were undecided, and 23 per cent leaned toward other vocations.

The enrollment for 1910–11 was 90 boys and 40 girls; for 1911–12, 136 boys and 62 girls; for 1912–13, 86 boys and 42 girls; for 1913–14, 84 boys and 33 girls; for 1914–15, 74 boys and 38 girls.

In 1913–14 the various counties in the district were represented by students as follows: Tift, 34; Berrien, 12; Grady, 11; Turner, 11; Colquitt, 6; Worth, 6; Early, 4; Decatur, 3; Mitchell, 3; Calhoun, 2; Miller, 1; Thomas, 1. There were 19 students from outside the district, and 6 from outside the State. Six counties in the congressional district had no students in the school. Of the 117 students in 1913–14, 22 were day pupils and 95 boarders. The school graduated 2 pupils in 1910, 3 in 1911, 15 in 1912, 16 in 1913, 19 in 1914, and a slightly larger number in 1915 and 1916.

OUTSIDE RELATIONS.

In the first days of the school the people of the district looked with suspicion on an effort to teach agriculture and home economics in schools. That opposition is now nearly gone. During the last few

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years many articles on agricultural topics have been written to the county papers of the district. Some talks have been given at farmers' meetings; a few letters of inquiry have been answered; eggs, breeding hogs, and farm seed have been distributed. The school now owns a projection lantern and slides, and lectures are given both at the school and at other places. Through the pupils the school is impressing upon the people of the district the importance of improved methods and implements.

OTHER DISTRICT AGRICULTURAL SCHOOLS.

The First District Agricultural School is located a half mile outside of the city limits of Statesboro, and was opened in February, 1908. It has four main buildings, including a dormitory for girls, a dormitory for boys, an academic building, and a dining hall. The academic building cost $20,000, the dormitories $15,000 each, and the dining hall, which includes a residence for the principal and his family and rooms for several members of the faculty, and was constructed almost entirely by student labor, cost $10,500. Statesboro's gift to secure the school was 288 acres of land, valued at $50 an acre, $60,000 in cash, and electric lights, telephone, and water free for 10 years.

Special emphasis has been put upon winter gardening. Both upland and sea-island cotton are grown. The shop is fairly well equipped. The school does its own laundry work. The school produces more farm products than it can use.

The Third District Agricultural School is located within the city limits of Americus and was secured by a gift from the city and the county of 300 acres of land valued at $15,000, $40,000 in cash, electric lights, telephone, and water for 10 years. It has the best equipped shop of any of the schools and stresses this phase of the work more than any other school. It has over $1,500 shop equipment and $800 worth of laboratory equipment.

The Fourth District Agricultural School is located 1½ miles from the county seat, Carrollton, in Carroll County. There is the usual academic building, boys' dormitory, and girls' dormitory. The shop is a brick building with adequate machinery. The annual fair held on the grounds brings several thousand people to the school. Its influence is clearly seen in the farms of the territory.

The Fifth District Agricultural School is located on a farm of 250 acres 3 miles north of Monroe. One hundred and seventy-five acres of this farm with $31,000 in cash were given by the town of Monroe. The school erected a concrete silo with student labor. Stress is being laid upon improving the stock of the area. The school has taken a number of prizes at county fairs on its stock—Percheron mares, Jersey and Hereford cattle and breeds of hogs.

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The Sixth District Agricultural School is located partly within the city limits of Barnesville, the county seat of Pike County. The school has a well-equipped shop, dairy, barn, and silo.

The Seventh District Agricultural School is located 2½ miles from Powder Springs and received from the town and county 240 acres of land valued at $35 an acre and a main building for academic work costing $15,000. Other buildings have been erected out of State funds. The attendance at this school has been the largest of any of the schools. Thirty-six hours' work is required monthly of each pupil; this reduces the board to $6.40 a month. All the labor of every kind, including cooking and laundering, is done by the pupils. The pupils erected the pumping station, installed the baths and toilet fixtures, made the mantles for the new dormitory, laid much of the brick work, and did the painting.

The Eighth District Agricultural School is located 1 mile from Madison, the county seat of Morgan County. Besides the usual academic and dormitory buildings, the school has a concrete silo, barns, shop, laundry, a good dairy, and a number of excellent farm animals.

The Ninth District Agricultural School is situated in the mountains of northeast Georgia, 3 miles from Clarksville, the county seat of Habersham County. It is doing a great work in developing this mountain section. It has a number of blooded cattle, hogs, and a Percheron mare. It has its own electric light plant, dairy, and shop, and devotes its attention to crops for that section, where no cotton is raised.

The Tenth District Agricultural School is situated 3 miles from Sparta, the county seat of Hancock County. It is devoting its efforts to the usual crops of the middle Georgia section.

The Eleventh District Agricultural School, located near the town of Douglas, received from the town and community $55,000 in cash, 30 acres of land valued at $50 an acre, and electric lights and water free for 10 years. It has a good laundry and shop and devotes its attention to south Georgia crops.

The following table summarizes the buildings at the various schools:

Buildings of the district agricultural schools.

Congressional district.	At opening of school.	Cost without equipment.	Added since school was first opened.	Cost of construction.
First	Main	$20,000	Dining hall, 3 floors	$9,000
	Boys' dormitory	15,000	Barns, cattle barn, farm superintendent's home, and servant house.	2,000
	Girls' dormitory	15,000		
Second	Main	16,500	Dining hall	2,800
	Boys' dormitory	16,000	Shop (wood and iron)	200
	Girls' dormitory	16,000	Barns	200
Third	Main	12,000	Shop (wood and iron)	5,000
	Boys' dormitory	12,000	Girls' dormitory and dining hall	12,000
Fourth	Main	12,000	Barns	1,000
	Boys' dormitory	12,500	Tenant house	150
	Girls' dormitory	1,000	Shop and dining hall	3,300
			Dairy	200
			House for principal	3,000

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Buildings of the district agricultural schools—Continued.

Congressional district.	At opening of school.	Cost without equipment.	Added since school was first opened.	Cost of construction.
Fifth	Main	$16,000	Shop (wood and iron)	$1,000
	Boys' dormitory	15,000	Cow barn	500
	Dairy building	200	Live-stock barn	500
			Girls' dormitory	3,000
			Laundry	2,500
Sixth	Main	18,000	Shop (wood and iron)	2,100
	Boys' dormitory	15,000	Barn	1,400
	Girls' dormitory	15,000	Chicken house	75
			Corn crib	100
			Cow shed	75
Seventh	Main	14,000	Shop (wood and iron)	1,500
			Barn	500
			Girls' dormitory	12,000
			Boys' dormitory	12,000
Eighth	Main	22,000	Horse barn	600
	Boys' dormitory	18,000	Cow barn	600
			Dairy	125
			Laundry	125
			Blacksmith shop	75
			Chicken house	300
			Wood shop	50
			Incubator house	100
			Cottage for principal	1,500
			Girls' dormitory	6,000
Ninth	Main, boys' dormitory	30,968	Barn and dairy	2,000
Tenth	Main	18,000	Laundry	1,500
	Boys' dormitory	16,000	Cow barn	500
	Girls' dormitory and dining hall.	10,000	Stable	1,000
			Tool house	100
			Tenant house	900
Eleventh	Main	22,000	Barn	600
	Girls' dormitory	15,000	Shop (wood and iron)	450
	Boys' dormitory	15,000	Laundry	350
Total		408,168		85,165

III. COURSES OF STUDY.

The course of study of the district agricultural schools, as adopted by the joint meeting of representatives of the State College of Agriculture and the principals of the schools, is given in tabular form on page 20, following.

The course as printed herewith represents annual revisions since 1912. In that year it seemed advisable to include in the course of study special preparation for teaching, as many of the graduates, particularly girls, secured positions as public school teachers in rural schools upon graduation. Accordingly three hours a week during the last two years of the course is now given to special work in pedagogy. The normal training course is not required, but is elective. Girls electing this work are not required to take European history in the third year, and in the fourth year may omit part of the work in domestic science or agriculture. The course includes in the third year a study of Colgrove's "The Teacher and the School" and "The Georgia Manual"; in the fourth year, Reed's "Introduction to Psychology," further work in the books used in the third year, and Foght's "American Rural School." Observation work is done in neighboring schools.

For detailed account of the course in agriculture and domestic science, see page 24.

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Recommended by the State College of Agriculture and adopted by the [illegible] meeting June 1, 1911, for use during 1911-12. Figures in parentheses indicate number of recitations per week. Laboratory periods are usually 120 minutes.

Class.	English.	Mathematics.	History.	Science.	Agriculture.	Farm Mechanics.	Domestic Arts and Science.
1	Grammar (5): Sanford, Brown, Smith. Classics (2): Evangeline. Miles Standish. Snowbound. Treasure Island. Last of Mohicans. Farm Life Readers, 4 and 5.	Arithmetic (5): Wentworth & Smith. Algebra (5): After February.	U. S. History (4): Evans' Georgia Stories, supplementary. Spelling (1): Sandwick and Bacon. Brooks' History of Georgia.	Geography Review (2). Penmanship (4): A. N. Palmer's Business Writing.	General Agriculture (4): Fundamentals of Agriculture, Halligan & Watson. Poultry (5): Our Domestic Birds: Curtis. Agricultural Laboratory. Rural School Agriculture. Davis. Botanical Lab. (1): Lee Davis.	Practical Drawing (5): Dean and Industrial Lab. Elementary Carpentry and Woodwork. Woodwork at Camp, one afternoon. Lab. Davis & Woodwork.	Agriculture with Girls. Practical Drawing with Agriculture. Special Course for Girls. [illegible]
2	Grammar (1): (As above). Composition (2): Eng. Comp. Bk. I, by Brooks. Classics (2): Old Testament Stories. Odyssey. As You Like It. Caesar. Ivanhoe. Lady of the Lake. So. Prose and Poetry. House of Seven Gables.	Arithmetic (2): Wentworth & Smith. Algebra (3): Wentworth & Smith.	European History, Part I. Spelling (1).	Civic Biology (4, including laboratory): Hunter. A Primer of Sanitation, Ritchie supplementary. Spelling (1).	Breeds of Live Stock (4): Black Judging (2): Purdue Circular No. 20. Dairying (2): Farm Dairying, Gurler. Farm Crops (4): Wilson and Warburton.	Forgework (4): Blacksmithing Lab. Beam & Purpling (split) Wood practice in sharpening tools and bolts and wood and bolts work.	Cooking. Housekeeping Lab. Theory and Practice of Cookery, Williams and Fales. Sewing: Plain Garments. Food Study: Prepared in [illegible] Home Nursing: Hygiene: Simple Study, 4 months.

Song Book, "Fifty Famous Songs," American Book Co.

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Revised course of study for the district agricultural schools of Georgia—Continued.

[Recommended by the State College of Agriculture and adopted by the principals in joint meeting June 5, 1915, for use during 1915–16. Figures in parentheses indicate number fo of recitations per week. Laboratory periods are usually 120 minutes.

Class.	English.	Mathematics.	History.	Science.	Agriculture.	Farm mechanics.	Domestic arts and science.
3	English Composition (2): Brooks (cont.). Classics (3): Merchant of Venice. Silas Marner. Sketch Book. Tennyson, selections. Thoreau Walden, So. Orations in So. Prose and Poetry. David Copperfield or Tale of Two Cities.	Algebra (5): (5 for 7 months.) Same text. Plane Geometry (5 for 2 months): Wentworth and Smith.	European History, Part II, or Elect. (3): School Management. The Teacher and The School, Colgrove, and Georgia Manual. Teachers omit 3 hours from industrial course.	Physics (3, with 3 laboratory periods extra). Mann & Twiss. Use Manual.	Feeding (4–5): Profitable Stock Feeding, Smith. General Horticulture Laboratory in Pruning, Spraying (4–5), etc. Popular Fruit Growing, S. B. Green.	Drawing, Practical Shopwork.	Sewing and Dressmaking: One laboratory. Dressmaker, Butterick Co. Millinery: One laboratory, 6 months. Household management: Two periods, 6 months. Household Management, Terrell. Home Nursing: Two periods, 3 months. Cooking, continued: One laboratory, 3 months.
4	Composition and Rhetoric, Bk. One. Grammar: Sanford (5). Classics (2): Washington's Farewell Address. Webster's Bunker Hill Address. Milton's Minor Poems. Macbeth. Essay on Burns. Howe's Primer of Eng. and Amer. Literature (1).	Plane Geometry (3): Text Complete.	Advanced Civics (3): Forman. U. S. History, Stevenson. Elec.: Elementary Psychology. First Term (2), Reed. School Management: 2d Term (2) continued. Study, The Georgia Manual	Chemistry and Its Relation to Daily Life, Kahlenberg & Hart (3), with 3 laboratory periods extra. Use Manual.	Soils (3): Fletcher's Soils. Fertilizers (3): Vorhees Fertilizers. Farm Management Laboratory (2). Landscaping (1): Landscape Gardening as applied to Home Decoration by Maynard.	Elementary Farm Surveying: One morning Lab. Practical Shopwork.	Cooking, continued: Two laboratory, 6 months. Dietetics (2): Food and Dietetics, Norton. Household Arts and Decoration: Two laboratory, 3 months. McGlauflin's continued, and bulletins.

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General schedule for district agricultural schools of Georgia.

MORNING.

Class.	Period.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
1	[1] 8:20 9:00	History.	History.	History.	History.	History.
	9:00 9:40	Arithmetic.	Arithmetic.	Arithmetic.	Arithmetic. Alg. (2) Feb.	Arithmetic. Alg. (2) Feb.
	9:40 10:20	Writing.	Writing.	Spelling	Spelling.	Geography review.
	10:20 11:00	Agriculture.	Agriculture.	Agriculture.	Agriculture.	Agriculture.
	11:00 11:40	English.	English.	English.	English.	English.
2	8:20 9:00	Domestic Science.	Shop.	Dom. Science (G). Agriculture (B).	Biology Laboratory. Farm.	Dom. Science (G). Agriculture (B).
	9:00 9:40		Farm.			
	9:40 10:20	Farm Mechanics (B).			Shop.	
	10:20 11:00					
	11:00 11:40		Home.		Home.	
3	8:20 9:00	Mathematics.	Mathematics.	Mathematics.	Mathematics.	Mathematics.
	9:00 9:40	English.	English.	English.	English.	English.
	9:40 10:20	[2] Teacher's Course.	History.	History.	History.	History.
	10:20 11:00	Science.	Laboratory.	Science.	Science.	Laboratory.
	11:00 11:40	Home Management (G). Agriculture (B).	Agriculture.	Home Management (G). Agriculture (B).	Agriculture.	Agriculture.
4	8:20 9:00	Home.	Dom. Science (G). Agriculture (B).	Chemistry.	Dom. Science (G). Agriculture (B).	Home.
	9:00 9:40			Laboratory.		
	9:40 10:20	Shop.		Farm Mechanics.		Shop.
	10:20 11:00					
	11:00 11:40	Farm.				Farm.

[1] 8:00–8:20 chapel. Some prefer chapel at noon. Saturday: holiday, extra work, etc.
[2] Teacher's course extra assignment as not suited to class (2).

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General schedule for District Agricultural Schools of Georgia.

AFTERNOON.

Period.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
[1] 1:00 1:40	Dom. Science (G)	Home	Girls and Boys Agriculture Laboratory	Home	Girls and Boys Agriculture Laboratory
1:40 2:20					
2:20 3:00	Farm Mechanics (B)	Shop / Farm / Fresh'nd Draw'g (G)		Shop / Farm	
3:00 3:40					
3:40 4:20					
1:00 1:40	History	History	History	History	
1:40 2:20	Arithmetic (2) and Algebra (3)	Arithmetic and Algebra	Arithmetic and Algebra	Arithmetic and Algebra	Arithmetic and Algebra
2:20 3:00	Science	Science	Science	Science Laboratory	Science Laboratory
3:00 3:40	Agriculture	*Home Study (G) Agriculture (B)	Agriculture	Home Study (G) Agriculture (B)	Agriculture
3:40 4:20	English	English	English	English	English
1:00 1:40		Dom. Science (G) / Agriculture (B)		Dom. Science (G) / Agriculture (B)	Physics
1:40 2:20	Shop		Shop		Laboratory
2:20 3:00	Farm		Farm		Farm Mechanics
3:00 3:40					
3:40 4:20	Home		Home		
1:00 1:40	Geometry	Surveying	Geometry	Surveying	Geometry
1:40 2:20	English	English	English	English	English
2:20 3:00	Landscape or Teacher's Course	Civics	Civics	Civics	Teacher's Course
3:00 3:40	Chemistry	Chemistry	Chemistry Laboratory	Chemistry	Chemistry Laboratory
3:40 4:20	Agriculture	Agriculture	Dietetics (G) Agriculture (B)	Agriculture	Dietetics (G) Agriculture (B)

[1] The Domestic Science laboratory period is open for each half session as needed.

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DETAILED DESCRIPTION OF THE COURSE IN AGRICULTURE AND DOMESTIC SCIENCE.

AGRICULTURE.

FIRST YEAR.

General agriculture.—Four periods per week. A survey of the agricultural field from a practical standpoint. Text: Halligan, Fundamentals of Agriculture.

Poultry husbandry.—One period per week. A general study of poultry under farm conditions, including the principles of breeding, incubation, brooding, feeding, and marketing. Text: Curtis, Our Domestic Birds.

Agricultural laboratory.—One double period per week, devoted to problems that arise in the classroom, both in general agriculture and poultry. Text: C. W. Davis, Rural School Agriculture.

Seasonal laboratory.—One double period per week. Devoted to the problems of the farm in season—for instance, the making, handling, and starting of hot beds at the time that this should be done; the pruning and propagating of plants during the winter months; poultry problems and vegetable gardening in the springtime. Text: Davis, Rural School Agriculture.

SECOND YEAR.

Breeds of live stock.—Two periods per week. Discussion of the origin, characteristics, and adaptability of the various breeds of cattle, swine, sheep, horses, and mules. Text: Shaw, Study of Breeds.

Dairying.—One period per week. Discussion of the elements of dairying, butter making, and handling milk and butter under farm conditions. Text: H. B. Gurler, Farm Dairying.

Stock judging.—One double period per week. Judging, handling, and scoring the various types of animals obtainable on the farm and in the locality. Text: Stock Judging for Beginners (Circular 29, Purdue University, Lafayette, Ind.).

Dairy laboratory.—One double period per week. Handling of milk and its products, including separation and cooling, ripening of cream, and butter making under farm conditions.

Farm crops.—Two periods per week. A study of the various crops adapted to southern conditions—wheat, oats, rye, barley, cotton, corn, sweet potatoes, peanuts, rice, sorghum, sugar cane, and tobacco. Text: Wilson and Warburton, Field Crops.

THIRD YEAR.

Feeds and feeding.—Three periods per week for the first half year, and two periods per week for the second half year. A study of the various feeds, both concentrated and rough; a combination of rations for stock under varying conditions and for various types of stock, all made applicable to farm conditions. Text: H. R. Smith, Profitable Stock Feeding.

Elementary horticulture.—Two periods per week for the first half year, and three periods a week for the second half year. Discussion of the location, site, planting, cultivating, fertilizing, pruning, spraying, and handling of an orchard from the beginning until it is bearing profitable crops, as well as a discussion of the various types of fruits. Text: Samuel B. Green, Popular Fruit Growing.

Feeding laboratory.—One period per week. Handling and study of feed stuffs; compounding of rations and feeding, noting from time to time the effects of the various rations upon the animal as to increase in weight, etc.

Horticultural laboratory.—During this period the students will survey and select locations, sites for orchards, prune during the winter months, and spray during the spring. Where practicable they should assist in planting trees, as well as in laying

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out orchard sites. A study of insect diseases under actual field conditions should also be made in this laboratory, as well as time devoted to the compounding, mixing, and applying of various and sundry spray mixtures.

FOURTH YEAR.

Soils.—Three periods a week for the first half of the year, and two periods per week, for the second half of the year. A study of the origin, weathering, and formation of the various types of soils. Special attention to handling, cultivating, green manuring, and improving soil conditions in the locality. Text: Fletcher, Soils.

Fertilizers.—Two periods a week through the first half of the year, and three periods a week during the second half of the year. Fertilizers are of absorbing interest to the Georgia farmer, and it is impracticable to spend as much time in studying them under the subject of soils as should be devoted to this phase of southern agriculture. In this course the students should become familiar with the various fertilizer carriers, their relative solubility, and cost per unit of plant food. They should be taught compounding fertilizers of high-grade materials for various and sundry crops normally grown upon the average farm. This course should drive home the fact that it is the unit of plant food applied which gives the result rather than the number of pounds of fertilizer. Text: Voorhees, Fertilizers.

Soil laboratory.—One double period per week is devoted to laboratory work parallel with soil or fertilizing test, so the student will have some first-hand knowledge of disintegration of rock, setting power of water, capillary movement of water, mixing fertilizers, acidity test, etc.

Farm management laboratory.—One double period per week is devoted in this course to the working out of farm problems peculiar to locality, such as rotation of crops, location of fields, drainage problems, and the practical correlation of various farm activities one to another. No text can be recommended for this course. The teacher must advise and help the students in finding and working out the problems.

Landscape gardening.—One period per week. This course is designed to give both the boys and girls some idea of the methods of building up and beautifying a home. A discussion is carried on of various and sundry types of landscape gardening, their adaptability to various sections, and the trees, plants, and shrubs available and useful to home ornamentation. Text: Maynard, Landscape Gardening as Applied to Home Decoration.

FARM MECHANICS.

Free-hand drawing.—This course should consist of the most elementary right-line and curvilinear free-hand exercises, to begin with. No object should be given until these exercises are completed and the student is very familiar with the method of making free-hand drawing. Use the Parallel Drawing Course, four books, as basis of work.

Woodwork.—This course should be designed with the sole purpose in view of acquainting the student with the use and care of the ordinary woodworking tools; also, the sharpening of these tools should be taken up. The exercises should be designed with this end in view and should not be given with the idea of making a finished cabinetmaker of the student. Park's Woodwork should be used as basis of course, largely modified to meet farm conditions.

Forge work.—The course in forge work should be the elementary exercises designed to thoroughly acquaint the student with the making of the coal fire, the handling of the hammer, tongs, hot and cold chisel, and top and bottom swages. The exercises should consist of the working of wrought iron and steel from the most elementary to the finished exercise of chain making. The working of steel should not be gone into until the student has thoroughly finished all of the exercises necessary in wrought iron. The exercises in steel should consist of the making and tempering of punches,

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cold chisels, and flat drills. Bacon's Forging should be used as basis of course, modified to meet farm conditions.

Mechanical drawing.—This course should consist of the most elementary problems in geometry and should be given in connection with the study of geometry. The student should be required to draw these geometrical exercises accurately and to scale, and should take as a geometry lessen the proving of these exercises. Text: Hart's Manual.

Elementary surveying.—This course should consist of terracing, elementary leveling as applicable to ditching, tile, draining, and elementary compass work for the survey and computing of areas of fields. The accurate measuring of distances should be given and insisted upon, as this part of the work is often neglected in the elementary work.

Domestic Arts.

FIRST YEAR.

Sewing, textile study.—Wool, cotton, silk, flax, manufacture. Primitive and modern application to purchase and use.

Basketry, sewing, stitches.—Use McGlauflin's Handicraft for Girls as basis of course. Basting, running, overcasting, overhanding, seams, plackets, hems. Backstitching or stitching stitch. Putting on bands, buttonholes, etc.

Articles: Laundry bag.

Cooking outfit: Sleevelets, apron, holder.

Articles for dining room: Hemming of napkins, scalloped doily, beginning of machine work, corset cover or chemise, slip-over nightgown.

SECOND YEAR.

Textile study, continued.—Quality, width, and cost of materials. Continuation of machine work. Pattern drafting and study of bought patterns. Garments: Underskirt, shirt waist, drawers, simple gingham dress.

THIRD YEAR.

Dressmaking.—Tailored wash skirt, wool dress, lingerie dress. Renovating and repairing of clothing. Homemade versus ready-made clothing. Advantages and disadvantages of each. Cost of clothing in relation to income. Art in dress.

Art needlework and millinery.—Designs, materials, stitches. Articles illustrating hemstitching, applique, ornamental darning, cross stitch, scallops and dots, eyelet and French embroidery, etc.

Fall millinery: Renovating and cleaning, wirework, millinery stitches, preparation of trimming, bias folds, rolled hem, milliner's fold, plain and double folds, French fold. Making of buckram frame, making of fall and winter hat, spring millinery, review of fall work, remodeling of old hats, street hat—frame, covering, straw, sewing, trimming, finishing.

FOURTH YEAR.

Winter term: Household arts and home decoration.—I. Principles underlying the furnishing and decoration of the home; collect and study types and examples showing good taste in wall decoration, floor finishing, and furnishings, furniture and draperies. Consider these from the standpoint of (1) harmony of color, (2) simplicity, (3) good proportion, (4) fitness both as to expense and ease of keeping in order.

Plan a room; having selected sitting room, dining room, or bedroom, consider the lighting and arrangement of spaces, and plan color scheme and furnishings, showing that no greater expense is required to carry out this plan than one lacking in harmony and beauty.

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II. Plan and execute an example of applied design in textiles, using embroidery, applique, stenciling, or block printing.

III. Sufficient time may be given in this or spring term to teach (with practical application in the time devoted to industrial work) the chemistry of cleaning, including care of painted, stained, or polished woodwork, removal of stains, laundry, etc.

Domestic Science.

SECOND YEAR.

Cooking and food study.—Canning and preserving of fruits and vegetables, relation of bacteria and molds to decay; use of heat, sugar, spices, vinegar, salt, drying, smoking, etc., in preservation of foods. Study of yeast and making light bread. Care and handling of milk, making butter and cottage cheese; boys and girls may be given same instruction in parts of the course in dairying, which is this year included in agriculture. Begin series of lessons on batters and doughs.

Winter.—Classes of foods, simple chemical tests for each, function of each; study typical foods—for example, eggs, milk, cereals, legumes, starchy vegetables—this study including source, manufacture, composition, digestibility, food value, economic value, cost, methods of preparation, etc. Continue series of bread lessons. Cook series of simple dishes involving application of heat to starches, fats, proteids, and combinations of fat and starch; this may include use of vegetables, cereals, legumes, eggs, etc. Brief study of meats, making of meat soups.

Spring.—Study of green vegetables and fruits as before outlined, stressing composition, chief values in diet, cooking vegetables, making cream soups, salads, simple desserts, series of lessons on cooking eggs. Text: Williams and Fisher, Elements of the Theory and Practice of Cooking.

Household management and hygiene—Winter.—Household hygiene—sweeping, dusting, ventilation, cleaning, making and use of disinfectants, care of sinks, ice box, etc., disposal of wastes, water supply. Personal hygiene—fresh air, bathing, care of hair and teeth, physiology and hygiene of sex.

THIRD YEAR.

Household management—Fall.—I. With special reference to rural homes, consider location of house, building of houses, furnishing and care of various rooms.

II. Planning a convenient farm kitchen, considering arrangement of the stoves, tables, cabinets, sinks, etc.; study equipment available for lessening present labor in cooking and serving food, in laundry and dairy work.

Winter.—I. Special study of heating, ventilating, and lighting houses; fuels for heating and cooking purposes, economy and convenience; as further application of physics of heat, the making and use of a fireless cooker.

II. Economic aspect; labor in the home; apportionment of income; keeping of accounts, banking, checking, etc.

Cooking—Winter.—Preparation of cereals, meats, meat stews, and vegetables in the fireless cooker; further study of meats and meat cookery.

Home nursing and emergencies—Spring.—Cuts, bruises, fainting, sprains and wounds, bandaging, antiseptics; care of the sick; treatment and prevention of tuberculosis, typhoid, scarlet fever, diphtheria, etc., putting emphasis on prevention of contagion and infection.

FOURTH YEAR.

Dietetics.—Review classification of foods and digestion, absorption and metabolism of carbohydrates, fats, proteins.

Energy requirement: Effect of muscular activity, age, sex, etc.

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Protein requirement: High and low standards; comparison of proteins of animal and vegetable origin.

Mineral requirement: Common errors in diet; diseases and illness due to faulty diet. Planning menus for different seasons of year, with reference to proper dietary requirement. Special diet; infant and child feeding; modified milk; foods for children 3 to 10 years; diet in disease.

Fall and spring cooking.—Review of all principles of cookery taught; more advanced work in preparing of meats, fish, breads, pastry, cakes, vegetables, desserts, salads. Planning of menus within a definite cost.

Serving of meals: Duties of waitress, host, and hostess. Invalid cookery: Preparation of meat broths, ices, beverages, breads, desserts, serving of food.

REFERENCES.

Sewing and textiles.—Haner, Embroideries and Their Stitches; Earle, Pattern Drafting; Watson, Home Life in Colonial Days; American School of Home Economics; Textiles and Clothing.

Household management and hygiene.—Elliot, Bulletins of the American School of Home Economics; Bevier, Household Hygiene; Bailey, The House (American School of Home Economics); Sanitary and Applied Chemistry; Food and Cooking; Bulletin 217, University of Wisconsin, The Fireless Cooker; Hunt, The Daily Meals of School Children (Bulletin, 1909, No. 3, U. S. Bureau of Education; Mitchell, The Fireless Cook Book; Farmer, Home Science Cook Book; Hogan, Children's Diet. Proctor and Gambell's little book on laundering will be useful in laundry practice.

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APPENDIX A.—STATISTICAL DATA.

Enrollment of students.

Congressional district.	Year.	First year.		Second year.		Third year.		Fourth year.		Unclassified below first year.		Total.		Boarders.	Day students.	Total.	Counties in district.	
		Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.				Represented by students.	Not represented.
First	1909–10	31	11	19	19	14	15	14	5	26	6	104	56	138	22	160	12	0
	1913–14	20	6	18	14	14	12	4	13	15	.....	56	45	110	6	116	12	0
Second	1909–10	21	16	21	11	13	5	3	4	.....	.....	58	36	87	7	94	11	7
	1913–14	12	6	25	9	22	18	15	5	.....	.....	74	38	85	27	112	13	5
Third	1909–10	52	10	23	7	15	1	9	3	.....	.....	99	21	103	17	120	13	2
	1913–14	23	3	39	5	16	2	11	2	.....	.....	89	12	91	0	101	12	3
Fourth	1909–10	46	18	11	8	8	2	9	1	.....	.....	130	42	123	49	172	9	1
	1913–14	44	9	33	11	13	1	10	5	.....	.....	100	25	101	25	126	10	0
Fifth	1909–10	9	7	20	2	16	9	7	2	.....	.....	52	20	50	22	72	8	0
	1913–14	42	18	26	14	20	10	9	2	.....	.....	98	52	129	21	150	7	1
Sixth	1909–10	13	4	10	6	9	5	12	5	.....	.....	44	20	32	32	64	.....	.....
	1913–14	35	10	26	20	12	26	6	5	.....	.....	79	61	102	28	140	10	0
Seventh	1909–10	33	10	30	12	22	10	7	2	.....	.....	92	34	80	46	126	10	3
	1913–14	36	25	45	30	40	10	24	10	.....	.....	145	75	190	30	220	10	3
Eighth	1909–10	27	.....	16	.....	5	.....	4	.....	.....	.....	52	52	52	52	52	12	0
	1913–14	10	3	17	3	9	6	9	3	.....	.....	45	15	57	3	60	8	4
Ninth	1909–10	44	22	30	26	14	9	8	4	.....	.....	96	61	92	65	157	13	5
	1913–14	18	17	26	9	14	12	9	4	.....	.....	67	42	72	37	109	14	4
Tenth	1909–10	8	1	8	3	7	15	6	7	.....	.....	29	26	48	7	55	8	3
	1913–14	6	2	18	12	16	13	12	3	.....	.....	52	30	75	7	82	7	4
Eleventh	1909–10	33	14	31	11	16	5	6	3	.....	.....	86	33	99	20	119	15	3
	1913–14	11	10	21	16	24	9	15	4	.....	.....	71	29	54	46	100	18	0

The more rigid enforcement of the requirements accounts for some difference in attendance in two or three of the schools over previous years

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Farms, farm crops, and farm animals.

Congressional district.	Number of acres.	Number of acres cultivated.			Number of acres in crops and woodland.					Number of animals on the farm.						Is farm growing enough feed for stock?
		By students.	Hired laborers.	By renters.	Cotton.	Grain.	Other products.	Pasture.	Woodland.	Mules.	Horses.	Cows.	Hogs.	Poultry.	Other animals.	
First	288	125	1	1	28	26	71	17	149	5	2	17	73	141	.....	Yes.
Second	315	100	.....	.....	13	90	60	22	200	5	1	27	70	15	.....	Yes.
Third	300	80	2	.....	2	70	8	70	19	3	0	14	70	300	.....	Yes.
Fourth	275	100	.....	.....	20	30	50	30	75	4	1	12	60	150	5	Yes.
Fifth	350	125	2	.....	15	90	11	40	45	3	3	36	34	40	1	Yes.
Sixth	314	162	.....	100	20	80	5	40	50	4	0	14	34	70	.....	Yes.
Seventh	240	75	.....	50	7	30	38	75	40	5	0	10	10	400	3	Yes.
Eighth	257	100	.....	.....	16	80	2	75	0	2	1	40	30	25	25	Yes.
Ninth	300	55	.....	.....	0	40	15	15	230	0	4	11	42	56	.....	Yes.
Tenth	275	50	2	35	4	75	15	30	75	2	2	6	60	40	32	Yes.
Eleventh	300	50	2	.....	5	38	6	35	75	2	1	4	25	125	66	Yes.

Financial statement, 1911–12.

Congressional district.	Value of plant.	Indebtedness.	State appropriation.	Electric lights and water donated 5 years.	Student expenses.					Total for salaries annually.	Allowance per hour for productive labor.	Is boarding department self-sustaining?
					Board, including room, light, and heat, per month.	Matriculation.	Books, average cost per annum.	Uniform (boys).	Uniform (girls).	Incidentals, per annum.			
First	$140,000	[1] $23,000	$10,000	Yes	$8.00	$1.00	$10.00	None.	$1.50	None.	$7,260	$0.10	Yes.
Second	90,000	None.	10,000	Yes	8.00	.....	8.00	$2.00	20.70	$2.00	6,065	.10	Yes.
Third	80,000	6,000	10,000	Yes	7.00	.....	5.00	21.60	14.00	None.	6,700	.10	Yes.
Fourth	75,000	None.	10,000	Yes	8.00	.....	10.00	None.	None.	None.	6,365	.10	Yes.
Fifth	60,000	4,000	10,000	Yes	9.00	2.50	7.50	7.00	10.00	None.	6,410	.10	Yes.
Sixth	100,000	5,000	10,000	Yes	7.00	.....	5.85	None.	14.50	None.	5,825	.10	Yes.
Seventh	85,000	None.	10,000	No	6.40	.....	7.50	6.70	8.00	1.00	5,380	.10	Yes.
Eighth	84,000	None.	10,000	Yes	8.00	.....	9.00	None.	None.	2.00	6,170	.10	Yes.
Ninth	51,000	4,000	10,000	No	8.00	.....	8.00	None.	12.25	3.00	5,750	.10	Yes.
Tenth	65,000	None.	10,000	No	8.00	.....	5.60	2.00	16.50	2.00	6,743	.10	Yes.
Eleventh	125,000	4,000	10,000	Yes	8.50	1.00	8.00	20.00	12.50	1.00	5,287	.10	Yes.

[1] Recent construction of combination dining hall and dormitory building.

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APPENDIX B.—LEGISLATION.

THE ACT CREATING THE DISTRICT AGRICULTURAL SCHOOLS.

A bill by Hon. H. H. Perry, of Hall County.

To be entitled An act to provide for the establishment and maintenance of schools of agriculture and the mechanic arts in the respective congressional districts of this State.

SECTION 1. *Be it enacted by the General Assembly of the State of Georgia, and it is hereby enacted by authority of the same,* That the governor is hereby authorized to establish and cause to be maintained in each congressional district of the State an industrial and agricultural school in accordance with the further provisions of this act. Said schools shall be branches of the State college of agriculture, a department of the University of Georgia. The general board of trustees of the university shall exercise such supervision as in their judgment may be necessary to secure unity of plan and efficiency in said schools.

SEC. 2. *Be it further enacted,* That all fees received from the inspection of fertilizers, oils, and all other inspection fees received by the department of agriculture in this State, after the present year, over the expenses of such inspection, and after any portion of said fund otherwise appropriated, shall be used as a fund for the purpose of establishing and maintaining such schools, and, as far as practicable, be equally divided between such schools, and the said governor is authorized to pay to the trustees of said schools, from time to time, their respective portions of said fund.

SEC. 3. *Be it further enacted,* That the governor is authorized and directed to appoint from each county in the respective congressional districts one trustee for the school to be established in such districts; such trustee to hold office for the term of six years from his appointment and until his successor is appointed, and that the trustees so selected in each district shall constitute a board of trustees for the school in said district, with power to control the management of said school, and make rules and regulations for the same, subject to the provisions of this act.

SEC. 4. *Be it further enacted,* That the governor shall be authorized to receive from any county, or any of the citizens thereof, a donation, of a tract of land in such county, not less than two hundred acres, on which to locate a school for the district in which such county is situated, together with any additional donation in the way of buildings or money; and if there are two or more offers of such donations, the governor, with the aid of the trustees of such school shall select which to accept, taking into consideration the title, value, the centralness of location, accessibility and suitableness in any respect for the purpose intended, and upon the acceptance of any such donation, and the execution of proper deeds vesting title in the trustees, within a reasonable time, the school for said district shall be established on the tract selected, with the right to select another locality should such deeds not be made to the satisfaction of the governor. And if no such donation is made or perfected in any district within one year from passage of this act the pro rata share of the fund going to said district shall go into and be prorated in the regular common school fund in said district.

SEC. 5. *Be it further enacted,* That the principal of said schools shall, under the direction of the trustees, keep an account of all receipts from the sale of the products of the farm or shop which are not consumed in said school, and one-half of said receipts for each year shall be set aside as a fund to pay the students. That each pupil, having performed to the satisfaction of the principal his duties for an entire school year, shall receive his pro rata of said fund, the amount going to each pupil not to exceed one hundred dollars, and the balance, if any, to be placed in the general fund of the school.

SEC. 6. *Be it further enacted,* That the course of studies in said schools shall be confined to the elementary branches of an English education, and practical treatise or

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DEPARTMENT OF THE INTERIOR
BUREAU OF EDUCATION

BULLETIN, 1916, NO. 45

KINDERGARTEN LEGISLATION

BY

LOUISE SCHOFIELD
EDITOR, NATIONAL KINDERGARTEN ASSOCIATION; SPECIAL COLLABORATOR, BUREAU OF EDUCATION

WASHINGTON
GOVERNMENT PRINTING OFFICE
1917

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LETTER OF TRANSMITTAL.

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION,
Washington, April 19, 1916.

SIR: The manuscript transmitted herewith gives in brief form a summary of legislation in regard to the establishment and maintenance of kindergartens in the several States and suggestions for obtaining new legislation on this subject. This information and these suggestions should be helpful to a large number of persons interested in the extension of the kindergarten as a part of the system of public education in the States. I therefore recommend that it be published as a bulletin of the Bureau of Education.

Respectfully submitted.

P. P. CLAXTON,
Commissioner.

The SECRETARY OF THE INTERIOR.

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INTRODUCTION.

According to a recent estimate, out of more than four millions of children between 4 and 6 years of age, less than half a million are enrolled in kindergartens. This condition may be attributed in general to a lack of knowledge of the practical, ethical, and social value of kindergarten education; to the expense of installing a system whose advantages are not always obvious to the minds of school authorities; and to a need for better kindergarten legal enactments in practically every State in the Union.

Parents and school administrators can be reached by means of patient, intelligent propaganda, and can be aroused to the point of urging the establishment of public kindergartens. Such work is now in progress and is securing good results. But hand in hand with the stirring of public sentiment there must go measures to facilitate the response to the demands. This means that the laws which pertain to kindergartens must be something more than unrestrictive; they must be positively helpful and progressive, in order that classes may be maintained in increasing numbers, that generous support may be given from school funds, and that high standards may be assured.

In the following pages it is proposed to show to what degree legislation in the various States fulfills its functions of facilitating the establishment of kindergartens and maintaining satisfactory standards.

Brief digests of the laws, including legislation through 1915, are given in an appended table, together with the number of kindergartens maintained in each State in 1915.

As a help to those who are especially interested in legislation, some of the various aspects of the practical work which a legislative campaign involves are outlined, and a copy of a successful law is presented as a model for study and possible adaptation.

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KINDERGARTEN LEGISLATION.

I. STATUS.

HISTORICAL STATEMENT.

The diversity in the laws that have been enacted for the kindergarten in the various States can not easily be explained except by a consideration of kindergarten legislation from the beginning.

Practically all the State school laws had been drafted before the kindergarten was legally adopted in America; and since the minimum school age had, in the majority of the States, been fixed at 6 years or thereabouts, it was not possible legally to provide kindergarten training for children of 4 and 5 out of the regular school funds. Massachusetts and Rhode Island, however, had placed no age restrictions upon entrance into the public schools; therefore it was possible in those States for children of kindergarten age to be educated at public expense. In a few of the States the minimum school age was fixed at 5 years; thus, if the law did not expressly forbid the substitution of kindergarten for the customary first-grade work, this instruction could be provided without special legislative enactment.

In 1886 Connecticut and Vermont passed the first legislation giving school authorities permission to open kindergartens. At that time there were in the country 417 kindergartens, of which 118 were connected with public-school systems.

During the next few years one State after another adopted some form of "permissive" legislation, but in several instances the restrictions imposed were of such a nature that the communities affected were unable to avail themselves of the permission. Nevertheless, the kindergarten continued to make numerical gains, and in 1900 the reports showed that out of 4,800 kindergarten classes in the various States approximately 1,800 were in public schools.

Practically all the kindergarten laws that have been placed on the statute books up to the present time are variations of the original permissive law. Moreover, there are still 15 States, besides the District of Columbia, which have no special legal provisions for the kindergarten. Yet the 1,800 public-school kindergartens existing in 1900 grew to nearly 8,000 in 1915.

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THE CALIFORNIA "MANDATORY-ON-PETITION" LAW.

What a good kindergarten law will accomplish has been brought forcibly to public attention by the fruits of the legislation adopted by California in 1913.[1]

The unique advantage of the California enactment lies in the fact that, on petition of the members of the public directly concerned—the parents or guardians of 25 or more children of kindergarten age living within 1 mile of an elementary school—the establishment of kindergartens on the part of local school boards becomes obligatory. Thus, if there exists the demand, the way is definitely marked out for complying with it, and in as direct and informal a manner as possible. County superintendents have final say in the matter, however, as they may approve or disapprove estimates submitted by local boards of education for the establishment of kindergartens. One other restriction is imposed, namely, that after the first year in which kindergartens are established in any locality their number shall be controlled by the school authorities.[2]

Evidence of popular appreciation of the value of the kindergarten was emphatic when the people realized the opportunity the new law gave them. In 1912 Federal statistics, under date of June 30, credited California with 149 kindergartens, having an enrollment of 10,910 children, in 20 cities and towns. The following year the mandatory law was passed, and in 1914 the number of kindergartens had increased to 197, of kindergarten children to 14,623, and of cities and towns to 25. In 1915 California reported to the Bureau of Education 316 public-school kindergartens, with 17,697 children enrolled, in 45 communities. Later information received from the State indicates that 86 new kindergartens were established in the fall of 1915, with an enrollment of approximately 4,000.

The law made this rapid growth possible, but it should be explained that it was not until its favorable provisions had been brought to the attention of the people through systematic effort that the number of kindergartens began to increase rapidly. For a year after the passage of the act, during which time nothing of this nature was undertaken, there was very little change in the number of kindergartens. In 1914 a special collaborator of the United States Bureau of Education, who was also a field secretary of the National Kindergarten Association, began cooperating with parents and school officials to bring about the establishment of classes in the way the new law permitted, with the result that the number of children receiving kindergarten training in California has more than doubled during the three years since this extension work was undertaken.

[1] See Appendix, p. 29, for the California law.

[2] This restriction was imposed by an amending act passed in 1915.

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Through this means it has also been possible to observe at first hand the practical workings of the law and to study especially the features which have contributed to its remarkable success.

The important question of maintenance has been taken care of by requiring a special tax to be levied in each district in which a petition for a kindergarten is presented.

Keeping in mind the fact that the ultimate aim in regard to legislative work is to make the kindergarten as nearly as possible a regular part of the public-school system, it would seem desirable that it should be supported in the same way that graded classes are provided for—out of regular school funds, supplied by the State and supplemented by district tax. But as these are in most instances appropriated in advance for regular school purposes, there would always be an uncertainty about funds for kindergarten classes petitioned for, and the mandatory provision of a law such as California has would be rendered null and void in some instances if arrangements were not definitely made in regard to this matter.

This was in fact exactly what happened in California. Although its law, as originally passed, took up the question of maintenance, it did not define the rate of taxation, and therefore, because of shortage of funds, it was not possible to establish all the kindergartens petitioned for. This was finally adjusted by an amendment, which fixed the amount of the tax at 10 cents on the $100 of taxable property. The money derived from the tax is designated as the "kindergarten fund" of the district in which it is collected and for which it must be used.

In this way the decision as to whether or not a community shall have the kindergarten rests more nearly in the hands of the beneficiaries, and the establishment of kindergartens becomes automatically controlled in proportion to the recognition of their values, as evinced by the willingness of the public to pay for them.

It will be noted that the California law provides that the county superintendent may approve or disapprove the estimate submitted by local school boards for the maintenance of kindergartens.

AN EXTREME NEED FOR LEGISLATION.

Arkansas illustrates in a striking way the demand for free kindergartens and the need for legislation to meet it. Although there is no section of the State school law giving local boards authority to maintain kindergartens, and the minimum school age is fixed at 6 years, so that no State or county money may be used for the education of children of regular kindergarten age, nevertheless three Arkansas cities reported to the United States Bureau of Education in 1915 that they had public-school kindergartens. There were five

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kindergarten classes in 1915, as compared with one in 1912. An interesting fact about the Arkansas public kindergartens is their high average of daily attendance. In 1912 it was 55 of the total of 62 boys and girls, and in 1915 it was 290 out of 330. Almost as high a percentage of attendance was reported for kindergartens "other than public"; in 1915 this was 203 out of a total enrollment of 332 children.

ESTABLISHMENT PARTIALLY MANDATORY.

Between the extremes presented by California and Arkansas there are several forms of legislation bearing on the kindergarten. Utah and North Dakota have laws which might be called partially mandatory. The arrangement in Utah is peculiar, the original permissive legislation of 1894, which applied, and still applies, to all school districts, having been supplemented in 1903 by an act requiring school boards to establish a kindergarten in any district having a population of 2,000 or more. The cost of establishing such classes was to come out of the school funds of each district, and four years were allowed local authorities in which to comply with this mandatory provision.

In conformity with this law Utah should have had a kindergarten in each district of the requisite size before 1907. The Utah plan sounds as if it might have been very effective, but the people did not insist that the school authorities do their duty in the matter, and so failed to reap the advantages of the law while it was operative. Though the last census showed 21 towns and cities (to say nothing of school districts) in Utah with the required 2,000 people, the 1915 returns to the United States Bureau of Education credit only 6 districts with public school kindergartens. These 6 districts have 45 kindergartens among them, and 1,953 boys and girls enrolled, with but 36 kindergartners. Each teacher therefore has an average of 54 children under her care. This overcrowding makes it sufficiently evident that the parents of Utah are eager for kindergarten training for their children if they can get it; and it is equally evident that more effective provision will have to be made to meet the need.

North Dakota adopted its partially mandatory plan in 1915, and there has not been time to see how it will work out. It provides that kindergartens shall be opened in places of 5,000 or more inhabitants if one-fifth of the voters petition for them, and in places of less population than 5,000 if a majority of the voters petition. Funds for the purpose are to be secured by district taxation. Before the new kindergarten law was enacted, and while a permissive law was in effect, North Dakota had seven public school kindergartens, divided among five communities.

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ESTABLISHMENT PERMISSIVE ON PETITION.

In promoting the legislation which was enacted in Nevada in 1915, it was first attempted to make the establishment of kindergartens in every school district obligatory on petition, but the obligatory clause was altered in committee, and in its final form, as passed, the act provides that kindergartens *may*, not *must* be established when they are petitioned for. If a district has sufficient school funds, these may be used for whatever classes the school authorities decide to establish; otherwise, support must be provided by special tax, not to exceed 25 cents on $100.

It will be interesting to watch how successfully this modification of the California law works out in a State with a comparatively small and scattered population. Under the permissive law, three Nevada communities maintained five kindergartens for 228 children in 1914. By a special enactment in 1911 the maintenance of kindergartens was made compulsory upon the local board in a single school district of the State.

Florida permits a kindergarten in any community that will guarantee 25 pupils. This is similar to a petition law, in that it allows parents to have a direct say in the matter.

ESTABLISHMENT PERMISSIVE.

There are various types of so-called "permissive" laws now operative. The majority of the 32 States which have them allow kindergartens to be maintained in all school districts by authority and management of school officials, and most of these are supported out of regular school funds, as shown by the following:

Support of kindergartens in States having permissive laws.

Regular school funds: Illinois, Iowa, Kansas, Michigan, Montana, New Jersey, Ohio, South Carolina, Utah, Washington.

Presumably regular school funds, although no provision specially made in kindergarten law: Connecticut, Delaware, Florida, Kentucky, Louisiana, Massachusetts, Minnesota, New York, Oklahoma, Oregon, Vermont, West Virginia.

Regular school funds or additional tax: Indiana, Nevada, Pennsylvania.

Special school funds: Colorado, Idaho, Missouri, Wisconsin.

Additional tax for kindergartens: Arizona, Wyoming.

That a large proportion of the States support kindergartens out of regular school funds is not surprising, since a permissive law leaves the decision with school authorities, and if they include kindergartens in their school systems, it is also their prerogative to use regular school funds for their support.

Kentucky permits kindergartens in cities of the first and second class, and seven cities maintain 57 kindergartens for 2,943 children under this law. Washington has a similar law; so has Oregon,

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which, however, requires that the qualified voters of the district shall pass on the matter. Washington has 27 public kindergartens, and Oregon only 1.

Indiana permits kindergartens in the common schools of incorporated cities and towns. These are supported by regular school funds. In cities of over 6,000 population, kindergartens may also be established in connection with incorporated kindergarten associations, and for their support a special fund must be collected in the city in which the association is located. In cities of 100,000, kindergartens may be established in connection with associations, provided 12 free classes are maintained by such associations. There are 184 kindergartens in 26 cities of Indiana, attended by 7,840 children.

In order that the children of Missouri may receive kindergarten training, there must be sufficient school money in excess of that used for the education of children of regular school age. Almost three-fourths of the kindergartens of Missouri are in St. Louis, the remainder being divided among seven other cities. Nearly 20,000 children are enrolled.

South Carolina excepts 11 of its 41 counties from the privilege of its "permissive" kindergarten law. There are only two public kindergartens in this State. Oklahoma permits kindergartens in cities or districts of 2,500 or more population, and 3 such places reported 50 kindergartens, with 1,341 children in 1915.

A population of 1,000 in a city or town allows a West Virginia school board to open a kindergarten, and two cities have availed themselves of the opportunity. The classes are crowded, however; together they have 153 children and only two kindergartners. Florida permits a kindergarten in any community that will guarantee 25 pupils. Seven places have 10 kindergartens, with 17 kindergartners for the 535 children.

STATES THAT MAKE NO SPECIAL LEGISLATIVE PROVISION FOR THE KINDERGARTEN.

Fifteen States and the District of Columbia have no special kindergarten laws.[1] A curious inconsistency comes to light in regard to the status of the kindergarten in these States. About a third of them allow children 5 years old to go to school, which permits kindergarten training to be given during one of the two traditional kindergarten years, and to be paid for out of regular school funds. But in the remaining States, which make either 6 or 7 the minimum age for entering school, no kindergarten training can be provided out of regular school funds. All of these States maintain kindergartens, presumably from local funds when necessary.

[1] See Appendix A, Table 2, p. 28.

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THE KINDERGARTEN AGE.

Besides insuring the establishment of sufficient classes to meet the demand properly and arranging for their adequate and equable support, a good kindergarten law must fix specific standards of work and qualificative requirements for both pupils and teachers to guarantee genuine efficiency as an educational agency. It is generally accepted that the proper time for a child to have kindergarten training is from his fourth to his sixth year. Sixteen States[1] definitely establish these years as the "kindergarten age" in their law. Missouri, however, excludes children from kindergarten until they are 5. It is only since 1915 that children have been able to enter even at this age, the law previously having prescribed 6 as the age for admission. Under that provision the children either did not attend kindergarten until they were old enough to be leaving it, or, if they entered under the specific age—and many did—the feat was accomplished by evasion of the law.

In Colorado, Idaho, and Montana the kindergarten age is fixed as from 3 to 6. Michigan and New Jersey allow children to stay in kindergarten classes until they are 7, which is commonly considered a year later than the best age for beginning regular school work. Connecticut, Delaware, Oregon, and South Carolina set no maximum age; their laws read simply "four or over"; while the law of Pennsylvania sets no minimum age, reading "less than six." Vermont is in a class by itself, stating the legal kindergarten age to be "under five." Arizona, Florida, Iowa, Massachusetts, and Ohio have kindergarten laws, but none of them defines the kindergarten age.

LEGISLATIVE CONTROL OF THE QUALIFICATIONS OF KINDERGARTNERS.

One of the essential points to be covered by legislation is a definition of the qualifications local school authorities shall require of kindergarten teachers. The importance of this, in order to secure the best educational results, is obvious. The preliminary training demanded of candidates and the conditions governing their entrance into the teaching profession in the various States show even more than other phases of the situation the existing lack of uniformity and of standardization.

Since the kindergarten has become an accepted, if not completely integrated, part of our school system, it is proper to expect the qualifications of kindergartners to be analogous in a general way to those laid down for other publicly employed teachers. Grade teachers are required, almost universally, to have a certificate granted after

[1] California, Illinois, Indiana, Kansas, Kentucky, Louisiana, Minnesota, Nevada, New York, North Dakota, Oklahoma, Utah, Washington, West Virginia, Wisconsin, and Wyoming.

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examination formulated by State educational authorities and pursuant to a course of training in a State normal school. In some cases a diploma from a college or university recognized by the State school officials as satisfactory also entitles the holder to a certificate. For many reasons it has not been easy to make the selection of kindergartners conform to rules governing the appointment of other teachers. In the first place, the authorities having charge of such matters have not always been familiar with the peculiar requirements of the kindergarten method of teaching, and therefore have had no knowledge of what standards should be imposed. Conflicting ideas of Froebel's plan and the methods of applying it seem to have obscured realization of the necessity for careful regulation.

The confusion resulting from the underlying causes is evident in the varying regulation of the selection of kindergarten teachers found on the statute books. Of the 25 States which make any positive attempt to control the situation, about one-half[1] unreservedly require certification of kindergarten teachers. Only four (Michigan, South Carolina, Texas,[2] and Vermont) demand that kindergartners shall have been graduated from training schools officially approved by the State educational authorities. A few others make the requirement in form, but with alternatives that effectually annul its best purpose. Illinois and Michigan stipulate a high-school education or its equivalent. Many States specify an examination, but in these also there are nullifying alternatives.

Attempts are already being made to standardize the requirements for the award of diplomas from training schools, both public and private.[3] As this is accomplished, and there is a clearer comprehension of the real place of the kindergarten in the school system of the country and of kindergarten teachers in the profession of pedagogy, undoubtedly there will be stricter supervision of instruction and employment.

Such are the main features of the legislation pertaining to the kindergarten in the different States. It is encouraging to realize that efforts are being made to secure more uniformity and more adequate provisions for the extension of the kindergarten on sure lines in order that it may the sooner take its rightful place as a fundamental part of the American system of education.

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[1] California, Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Nevada, New Jersey, Oregon, Pennsylvania, Vermont, Wisconsin.

[2] See Appendix A, Table 2, note 6, p. 28.

[3] Bulletin, 1916, No. 5, of the Bureau of Education, on "Kindergarten Training Schools," is intended to help school administrators in selecting teachers; it will also serve to indicate to prospective students the institutions where satisfactory training may be secured. This information in available form will, it is believed, influence favorably the standards of all training schools and be a strong incentive to schools that now give inferior instruction to improve their courses.

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II. SUGGESTIONS FOR LEGISLATIVE WORK.

The definite step in advance taken in California—the enactment of a law which has resulted in the opening of nearly 250 new kindergartens in less than four years—marks the beginning of legislative reconstruction not only for that State but, it is believed, for many other States.[1]

OUTLINE OF KINDERGARTEN BILL.

The following outline, combining the valuable features of the California mandatory law with some of the best provisions contained in other State laws, will be helpful to those interested in extending and bettering the kindergarten through legislation.

1. *Establishment of kindergartens.*—Obligatory on petition of parents or guardians of 25 or more children of kindergarten age all of whom live within the territory served by any one elementary school.

2. *Body having administrative control.*—Regular school authorities.

3. *Financial maintenance.*—Regular school funds available for this purpose; otherwise, a special tax at a fixed rate.

4. *Kindergarten age.*—Four to six years.

5. *Qualifications of kindergarten teachers.*—(1) Completion of high-school course; (2) diploma from training school giving two years' practical and theoretical kindergarten course which is officially approved as satisfactory by State educational authorities; (3) successful examination by proper official body; (4) licensure by official body having charge of the licensing of other public-school teachers.

FACTS ABOUT THE KINDERGARTEN WHICH LEGISLATORS MAY WISH TO KNOW.

1. What the kindergarten is: The kindergarten seeks to guide the natural and abundant activity of children during the years from 4 to 6 in an orderly and well-rounded manner. In the kindergarten children learn with eagerness to observe understandingly, to work because they love work, to use their hands deftly, to be considerate of others, and to have the best thoughts and feelings. Thus, at a most important habit-forming age, through the natural, happy ways of play, they are given a right start on their sometimes difficult journey. The kindergarten may mean all the difference between their becoming good or bad citizens later in their lives, and, in any case, it makes for a much higher expression of their innate beauty and strength than do the narrow homes and broad streets from which

[1] A circular prepared and distributed by the National Kindergarten Association contains suggestions for procedure in this work that have been found helpful.

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many of them come. The kindergarten is not a day nursery, but a most vital part of the elementary school system.

2. Kindergartens are most efficiently organized with an enrollment of 50 children, a head kindergartner and an assistant kindergartner.

3. Approximate cost, per child, of equipping kindergarten, $5.

4. Approximate cost, per child, of maintaining kindergarten: This would depend upon the amount paid for teachers' salaries (see 5), plus the cost of temporary materials, which averages $1 a year per child.

5. Salary of kindergarten teacher: If a kindergartner is as well equipped for her work as she should be—and this means that she must have had a good general education and two years' special training—she should receive at least the minimum salary of a grade teacher. Her hours of service should be the same. In addition to teaching in class for three hours in the morning, her duties comprise preparing materials, conducting mothers' meetings, and making visits to the children's homes during the afternoon. The afternoon duties of the kindergarten teacher are considered as essential a part of the kindergarten program as her class work. If, owing to peculiar local conditions, in some instances mothers' meetings and visits to the homes are not possible, the afternoons of the kindergartner may be utilized for other special purposes. For instance, it would be helpful to have her practice advanced kindergarten methods in the grades. This experiment has been tried with excellent results, and, moreover, suggests itself as a valuable means of making closer connection between kindergarten and primary work for the children.

The following special information may be obtained from the Kindergarten Division of the Bureau of Education, Washington, D. C.:

6. Legal provisions to date regarding kindergartens in your State.
7. Number of children in State of kindergarten age.
8. Number of kindergartens in the State.
9. Number of children in kindergartens in the State.
10. Number of kindergarten teachers employed in the State.
11. Facilities for training kindergarten teachers and approximate number of teachers graduated each year.

Information on the following points will usually be obtainable from the State superintendent of public instruction:

12. Cost of establishing and maintaining kindergartens already in the State.
13. Provisions for accepting teachers trained outside the State.

BULLETINS AND CIRCULARS FOR USE IN LEGISLATIVE WORK.

The following bulletins and circulars, which may prove helpful in acquainting legislators and others with the purpose and value of

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the kindergarten, can be obtained, with the exceptions noted, from the Bureau of Education or from the National Kindergarten Association, 250 Madison Avenue, New York City:

Kindergartens in the United States. Statistics and Present Problems. Bulletin, United States Bureau of Education, 1914, No. 6, 133 pages, illustrated. (For sale by the Superintendent of Documents, Government Printing Office, Washington, D. C. Price 20 cents.)

Kindergarten Training Schools. Bulletin, United States Bureau of Education, 1916, No. 5, 62 pages.

Every Little Boy and Every Little Girl. Illustrated two-page leaflet on value of intellectual and manual training given in kindergarten.

Your Children and Your Children's Friends. Illustrated two-page leaflet on social importance of kindergarten.

Why Should the Kindergarten Be a Part of the Public-School System? Four-page circular.

How the Kindergarten Helps the Grade Teacher. Four-page circular.

How to Start a Kindergarten. Four-page circular.

Comparative Table for 1914, Showing Number of Kindergartens in Each State. Two-page circular.

How the Kindergarten Provides Education.[1] Eight-page leaflet emphasizing the educative value of the instruments and methods of the kindergarten.

The Worth of the Kindergarten for Every Child.[1] Four-page leaflet on the reasons why the kindergarten is of universal value.

Answers to Objections to the Kindergarten.[1] Seven-page pamphlet dealing with objections most commonly offered to the kindergarten.

The Kindergarten Movement in the United States.[1] A brief outline of the significant facts of kindergarten history in America.

SPEAKERS, MOTION PICTURES, LANTERN SLIDES, EXHIBITS.

To help secure the support of the general public in legislative work for the kindergarten, the Kindergarten Division of the Bureau of Education and the National Kindergarten Association cooperate in securing speakers who are competent to set forth the various phases of the kindergarten subject. They also lend motion pictures, lantern slides, and exhibits which show kindergarten activities and give general information of value in extension work.

[1] To be obtained from the Bureau of Education or from the officers of the International Kindergarten Union, Washington, D. C.

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APPENDIX A.

TABLE 1.—*Constitutional and statutory provisions for the establishment, maintenance, and control of kindergartens.*[1]

States—Legal references.	Dates of original provisions.	Establishment of kindergartens.		Body having administrative control.	Financial maintenance.	Kindergarten age.	Qualifications required of kindergarten teachers.	Kindergartens maintained in 1915.	
		Mandatory.	Permissive.					Public.	Other than public.
ARIZONA.									
Const. Art. XI, sec. 1, Rev. Stat., 1913, Civil Code, p. 953, Ch. XXIII, secs. 2847–2851.	1901	.....	In all school districts.	Board of trustees of school districts.	Additional school-district tax levied by county boards of supervisors.	.....	Must have graduated from approved kindergarten-training school and be licensed by State board of examiners, or pass examination of State board of education.	20	4
CALIFORNIA.[2]									
Pol. Code, 1909, secs. 1543, 1662; Stat. 1913, ch. 611, p. 1138, Ninth; Stat. 1915, p. 767, ch. 463; ch. 470, secs. 1 (3) e, p. 773, 3 (e), p 776.	1891 1901 1913	In cities, cities and counties, and school districts, on petition of parents or guardians of 25 or more children of kindergarten age living within 1 mile of elementary school.	.....	Board of education in cities, and cities and counties, or board of school trustees in school districts.	"Kindergarten fund" collected as additional local tax by county boards of supervisors; not to exceed 10 cents on $100 in any one year.	4 to 6.....	Must have kindergarten-primary certificate, granted by city or city and county boards of examiners under their own rules; or kindergarten-primary certificate of county boards of education, issued upon examination, or upon presentation of diploma from kindergarten department of State normal school in State, or of credentials showing that applicant has had general education equivalent to requirement for graduation from kindergarten department of a California State normal school and professional kindergarten training in an institution approved by the State board of education; or temporary kindergarten-primary certificate, granted by county boards of education to holder of kindergarten-primary certificate of any other county, to graduate of college, normal school, or university who holds valid certificate issued out-	316	52

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							side State of a grade equivalent to that of county kindergarten-primary certificate, or to graduate of Leland Standford Junior University.		
COLORADO.									
Gabriel's Rev. Ed. of Mill's Anno. Stat. 1912, Vol. II, p. 2807, sec. 6660.	1893	.....	In all school districts.	School board of school district.	Special school funds of districts.	3 to 6.....	Must have diploma from reputable kindergarten teacher's institute, or must have passed examination of State normal school on kindergarten work.	100	13
CONNECTICUT.									
Public acts, 1915, p. 2001, ch. 169.	1886	.....	In towns and school districts.	.....	.....	Over 4.....	.....	212	41
DELAWARE.									
Laws 1898–99, p. 193, sec. 22.	1898	.....	In all districts.....	.....	.....	4 or over..	.....	.....	11
FLORIDA.									
Comp. Anno. Laws 1914, Vol. I, secs. 416a, aa, aaa.	1905	.....	In communities guaranteeing attendance of 25 kindergarten pupils.	County boards of public instruction or board of trustees of special-tax school districts.	.....	.....	Must have certificate from reputable kindergarten training school.	10	13
IDAHO.									
Rev. Codes 1908, Vol. I, p. 407, sec. 671.	1901	.....	In all school districts.	School board of school district.	Special school funds of school districts.	3 to 6.....	Must have diploma from reputable kindergarten training school or be licensed in accordance with rules of State superintendent of public instruction.	1	
ILLINOIS.									
Jones and Addington's Anno. Stat., 1913, Vol. V, p. 5945, secs. 10317–8; Laws 1913, p. 589; Laws 1915, p. 644.	1895 1913	.....	In school districts.	Board of school directors or board of education of school districts.	School funds of school districts.	4 to 6.....	Must have county "kindergarten-primary" certificate granted by county superintendents only to persons who have graduated from recognized high and kindergarten training schools, or completed equivalent course, or who have passed examination of examining board.	325	121

[1] Only those provisions which relate specifically to kindergartens have been tabulated. General provisions of the school laws which would be applicable have not been included.

[2] By section 1663(1) of the Political Code of California, holders of kindergarten-primary or special kindergarten certificates are entited to teach in the first grade. Boards of trustees of normal schools in California may, in their discretion, according to section 1489 of the Code, maintain model and training schools of the kindergarten grade.

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TABLE 1.—*Constitutional and statutory provisions for the establishment, maintenance, and control of kindergartens*—Continued.

States—Legal references.	Dates of original provisions.	Establishment of kindergartens.		Body having administrative control.	Financial maintenance.	Kindergarten age.	Qualifications required of kindergarten teachers.	Kindergartens maintained in 1915.	
		Mandatory.	Permissive.					Public.	Other than public.
INDIANA.									
Burns's Anno. Stat., Rev. of 1914, Vol. III, secs. 6483–5, 6388a.	1889 1901 1911	.....	In incorporated cities and towns in connection with common schools; in cities of over 6,000 population in connection with incorporated kindergarten associations; in cities of over 100,000 in connection with associations, provided they maintain 12 free classes.	Board of trustees of incorporated towns and cities; board of school commissioners or school trustees of cities of over 6,000 population.	Local school funds of towns or cities. Special kindergarten fund collected as additional school tax, at rate of 2 cents on $100 in cities of over 6,000.	.....	Must have license granted by county superintendent of schools after successfully passing examination in kindergartening and meeting qualifications required by law or by State board of education.	184	86
IOWA.									
Anno. Code 1897, p. 942, sec. 2777.	1896	.....	In independent school districts.	Boards of directors of school district corporations.	Regular school funds.	.....	Must have certificate granted by county superintendent of education after taking examination in kindergarten principles and methods.	328	32
KANSAS.									
Dassler's Gen. Stat. 1909, p. 1607, sec. 7442 (66); Laws 1915, p. 390, sec. 6.	1907 1915	.....	In all school districts.	School board of school district.	School funds of districts.	4 to 6.....	Must have special certificate issued by State board of education upon examination or other satisfactory evidence of qualifications.	51	16
KENTUCKY.[1]									
Thum's Anno. Supp. of 1915 to Stat. 1909, secs. 2978b1, 2978b30, 3212b, 3212gg.	1910 1912	.....	In cities of first and second class.	Board of education in cities of first and second class.	.....	4 to 6.....	.....	57	19

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LOUISIANA.									
Consti. art. 248.....	1898	.....	Throughout State.	.....	.....	4 to 6.....	.....	59	10
MASSACHUSETTS.									
Supp. to Rev. Laws 1902-8, p. 428, ch. 42.	1898	.....	In cities and towns	School committee of cities and towns.	.....	.....	.....	363	69
MICHIGAN.									
Sec. Ed. Howell's Anno. Stat. 1913, Vol. IV, p. 4045, secs. 10068-71.	1891 1901	.....	In school districts and in cities and towns.	District board of school districts, or school trustees, board of education, etc., of cities and villages.	Teachers' salaries paid out of regular school funds.	4 to 7.....	Must have kindergarten certificate granted to person who (1) holds teacher's certificate or is graduate of reputable college of State or high school having four years' course, and (2) is graduate of kindergarten training school approved by State superintendent of public instruction.	684	37
MINNESOTA.									
Gen. Stat. 1913, sec. 2752 (2), p. 622, sec. 2862, p. 640.	1901 1913	.....	In independent districts.	School boards of independent districts.	.....	4 to 6.....	Must have special certificate issued by the State superintendent of education after graduation from approved college or State normal school or after completing such course of study as he may require.	251	29
MISSOURI.									
Consti. Art. XI, sec. 1; Laws 1913, p. 717.	1913	.....	In school districts where sufficient funds are available after education of children between 6 and 20 has been provided for.	Board of directors or board of education of school districts.	Surplus of special school funds.	5 to 6.....	.....	273	48
MONTANA.									
Laws 1913, p. 237, ch. VI, secs. 600, 602; ch. IX, p. 250 (e).	1899 1913	.....	In school districts.	Board of trustees of school districts.	School funds of districts.	3 to 6.....	Must have passed examination of State normal school on kindergarten work, or have certificate of kindergarten teacher's institute recognized by State normal school, or possess special certificate issued by State superintendent of public instruction upon request of local school officers and upon evidence of proficiency to teach as shown by credentials.	6	5

[1] Boards of education in cities of the first and second class in Kentucky are empowered to establish classes for training kindergarten teachers.

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TABLE 1.—*Constitutional and statutory provisions for the establishment, maintenance, and control of kindergartens*—Continued.

States—Legal references.	Dates of original provisions.	Establishment of kindergartens.		Body having administrative control.	Financial maintenance.	Kindergarten age.	Qualifications required of kindergarten teachers.	Kindergartens maintained in 1915.	
		Mandatory.	Permissive.					Public.	Other than public.
NEVADA.									
Laws 1911, p. 36, ch. 42; Rev. Laws 1911, sec. 3271; Stat. 1915, p. 126, ch. 110.	1907 1911 1915	In Sparks School Dist. No. 29.	In school districts upon petition of parents or guardians of 25 or more children between 4 and 6.	Board of school trustees of school districts.	For kindergarten in Sparks School No. 29, special tax. School funds of school districts or, if necessary, special district tax not to exceed 25 cents on $100, levied by county board of commissioners.	4 to 6.....	Must have special certificate granted by State board of education after determining fitness of applicant by whatever method it deems appropriate.	5	2
NEW JERSEY.									
Comp. Stat. 1911, Vol. IV, p. 4773, Art. XII.	1899	.....	In school districts.	Board of education of school districts.	Regular school funds.	4 to 7.....	Must have special kindergarten certificate issued by State board of examiners, or board of examiners of county or city in which kindergartner desires to teach.	615	51
NEW YORK.									
Cons. Laws Supp. 1913, Vol. I, p. 614, sec. 311.	1894	.....	In all school districts and cities.	Board of education in all school districts and cities.	.....	4 to 6.....	.....	1,764	338
NORTH DAKOTA.									
Laws 1915, p. 168, ch. 129.	1909	On petition of majority of legal voters in school districts; one-fifth of legal voters in cities of over 5,000 population.	.....	School board of school districts.	School funds of districts raised by direct taxation for the purpose.	4 to 6.....	Must have completed kindergarten course at State normal school, or passed examination of State examining board.	5	9

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OHIO.									
Page and Adams' Anno. Gen. Code 1912, Vol. III, p. 835, sec. 7722.	1893 1909	.....	In connection with public-school system.	Boards of education.	Regular school funds.	.....	.....	469	74
OKLAHOMA.[1]									
Session Laws, 1913, p. 560, art. 12.	1903	.....	In towns, cities or school districts having population of 2,500 or more.	School officers of towns, cities or school districts having population of 2,500 or more.	.....	4 to 6.....	No special provisions regarding qualifications of kindergarten teachers, but law requires that normal schools in State must arrange for their training within one year of passage of act.	50	17
OREGON.									
Laws 1913, ch. 172, p. 305, sec. 25; ch. 170, p. 297, sec. 1.	1901 1911	.....	In school districts of first and second class when authorized by qualified voters of districts.	District school board of school districts of first and second class.	.....	Over 4.....	Must have special certificate issued by State superintendent of public instruction, upon satisfactory evidence of fitness to teach.	1	6
PENNSYLVANIA.									
Laws 1911, Art. IV, p. 329, Art. V, p. 331, sec. 501; Art. XII, p. 373, sec. 1203; Art. XIII, p. 379, sec. 1319; Art. XIX, p. 402, secs. 1904, 1906.	1897 1911	.....	In school districts in connection with public-school system, and with nonsectarian associations or agencies.	Board of school directors of school districts.	School funds derived from State appropriation, or local taxation, if necessary.	Less than 6.	Must have temporary or permanent certificate issued by State superintendent of public instruction after graduation from approved kindergarten training school, or upon examination.	442	120
SOUTH CAROLINA.									
Acts 1913, p. 195, No. 133.	1913	.....	In all except 11 counties.[2]	County boards of education.	School funds.....	4 or over..	Must have had 2 years' course in kindergarten training and possess certificate or diploma from recognized kindergarten normal training school approved by State board of education.	2	26
UTAH.[3]									
Consti. Art. X, sec. 2; Compiled Laws 1907, p. 743, ch. 20, secs. 1966, 1966x.	1894 1897 1903	.....	In school districts.	School board of school districts.	School funds of school districts.	4 to 6.....	Must have kindergarten certificate of State normal school or pass kindergarten examination of State board of education.	45	5

[1] The Oklahoma law defines kindergarten as "the application of the methods of Froebel or some approved American development of said method, and not merely subprimary grades for children."

[2] The counties excepted are Sumter, York, Greenwood, Bamberg, Abbeville, Saluda, Lee, Aiken, Jasper, Chesterfield, and Williamsburg.

[3] Section 1966x of the Compiled Laws of Utah, 1907, which was enacted in 1903 (ch. 114) made the establishment of kindergartens obligatory in districts having a population of 2,000 and over before 1907. Very few districts complied with this requirement.

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TABLE 1.—*Constitutional and statutory provisions for the establishment, maintenance, and control of kindergartens*—Continued.

States—Legal references.	Dates of original provisions.	Establishment of kindergartens.		Body having administrative control.	Financial maintenance.	Kindergarten age.	Qualifications required of kindergarten teachers.	Kindergartens maintained in 1915.	
		Mandatory.	Permissive.					Public.	Other than public.
VERMONT.									
Pub. Stat. 1906, p. 275, sec. 1009; Laws 1908, No. 37, sec. 18, p. 38.	1886 1892 1900	.....	In connection with public-school system throughout State.	Board of school directors.	.....	Under 5...	Must have certificate issued by commissioner of education after graduation from recognized kindergarten training school; certificate valid for five years.	15	3
WASHINGTON.									
Rem. and Bal. Anno. Codes and Stat. 1910, Vol. II, secs. 4653, 4741, Vol. III, Supp. 1913, secs. 4738, 4740.	1897	.....	In school districts of first and second class.	Board of directors of school districts of first and second class.	General school funds of districts.	4 to 6.....	Must have diploma or certificate from accredited kindergarten training school, from kindergarten department of a Washington State normal school or of a normal school whose kindergarten department is accredited by the State board of education; or special certificate issued by county or city superintendents of education after having shown fitness by examination or otherwise.	27	21
WEST VIRGINIA.									
Hogg's Anno. Code 1913, Vol. I, sec. 2073.	1899 1908	.....	In districts in which there is a city, town or village of 1,000 population or more.	Board of education of districts having city, town or village of 1,000 population or more.	.....	4 to 6.....	Must have diploma from kindergarten college, or have regular teachers certificate and have passed examination in kindergarten methods and theories given by boards of education.	3	6
WISCONSIN.									
Stat. 1913, secs. 430c, 430d, 447, 458q, 458s; Laws 1913, p. 580, ch. 514.	1899 1901 1905	.....	In connection with primary grades throughout State—in cities of third and fourth class, sub-	Board of education of cities, district boards, and town boards of school directors.	Special funds, in cities of third and fourth class appropriated on approval of city council; special	4 to 6.....	Must have certificate issued by State superintendent of education upon presentation of diploma from normal school which has kindergarten course established by board of regents of normal schools; or special	600	31

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			ject to financial restrictions and in graded districts on vote of voters present at annual meeting of district.		tax in graded districts.		license issued by State board of examiners upon presentation of diploma from kindergarten training school of equivalent standing, and after taking examination; or certificate issued after examination by county or city superintendents of education (except superintendents of cities of first class).		
WYOMING.									
Comp. Anno. Stat. 1910, p. 549, ch. 137.	1895	.....	In school districts.	Board of trustees of school districts.	Special district tax, amount determined by qualified electors, and not to exceed rate of 1 mill on the dollar.	4 to 6.....	Must have certificate or diploma from reputable kindergarten training school and pass such examinations as are required by boards of trustees of school districts.	10	.....

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TABLE 2.—*States having no special constitutional or statutory provision for the establishment of kindergartens—Number of public kindergartens maintained under the general provisions of the State school laws, and number of other than public kindergartens, 1915.*

States.	Minimum school age—Legal reference.	Kindergartens.	
		Public.	Other than public.
Alabama	7—Consti., sec. 256	34	24
Arkansas	6—Kirby's Digest of Stat. 1904, p. 1537, sec. 7484	5	9
District of Columbia		77	6
Georgia	6—Code 1911, Vol. I, sec. 1509	19	49
Maine	5—Laws 1911, ch. 22, p. 14	38	8
Maryland	6—Anno. Code Supp. 1912-1914, Vol. III, p. 812, sec. 43	24	28
Mississippi[1]	5—Consti., art. 8, sec. 201	15	8
Nebraska[2]	5—Consti., Art. VIII, sec. 6	157	16
New Hampshire	5—Pub. Stat. and Ses. Laws, Supp., 1901-1913, p. 173	32	8
New Mexico[3]	5—Anno. Cod. Stat. 1915	12	5
North Carolina[4]	6—Consti., Art. IX, sec. 2	7	22
Rhode Island	5—Gen. Laws, 1909, p. 272, sec. 15	98	9
South Dakota[5]	6—Comp. Laws, 1913, Vol. I, p. 581, sec. 99	10	7
Tennessee	6—Anno. Code, 1896, ch. 3, p. 420, Art. XI, sec. 1450	5	18
Texas[6]	6—Vernon's Sayles Anno. Stat. 1914, vol. 2, p. 2040, Art. 2900	27	47
Virginia	7—Pollard's Supp. to Anno. Code, Vol. III, p. 229, sec. 1492	21	30

[1] One of the purposes of the Mississippi Industrial Institute and College, as required by law, is to train kindergarten teachers. Code 1906, ch. 66, sec. 2524.

[2] Kindergarten teachers in the State of Nebraska must have a city kindergarten certificate granted under rules prescribed by the State superintendent of public instruction. Comp. Anno. Stat., 1911, p. 1785, sec. 5518e.

[3] The New Mexico Normal University is required by law to have a kindergarten training school for teachers. Anno. Stat., 1915, sec. 4982.

[4] A kindergarten bill was introduced in the North Carolina Legislature of 1915 providing that kindergartens might be established in any school district upon vote of the qualified voters of the district and should be supported by special tax. This bill was signed by the governor and printed in the laws of the State for the year mentioned, but it is inoperative because, through an oversight, it was not passed by roll-call vote in the house on separate days, as required of bills carrying tax features.

[5] In South Dakota a primary teacher's certificate, issued upon examination in kindergarten methods among other subjects, entitles the holder to teach in the kindergarten and first and second grades in cities and towns. Comp. Laws, 1913, Vol. I, p. 573, sec. 58.

[6] A law was passed in Texas in 1907 permitting kindergartens to be established and stating requirements for kindergarten teachers, but this was repealed in 1911. Article 2902 of Vernon's Sayles' Statutes of 1914 permits school trustees to admit to the public schools persons over and under the scholastic age "on such terms as they may deem proper and just." This provision would seem to permit the establishment of kindergartens. Article 2811 of the Statutes, which is an amended form of the section of the repealed law of 1907 relating to kindergarten teachers, provides for the issuance of a State kindergarten certificate by the State department of education upon presentation by the applicant of a diploma from an educational institution in Texas giving a two-year kindergarten course of practical and theoretical training in addition to the regular course, or a diploma from a kindergarten training school or department approved by the State superintendent of public instruction.

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APPENDIX B.

THE CALIFORNIA KINDERGARTEN LAW

Relating to the Establishment of Kindergartens.

Enacted 1913, amended 1915.

The board of education of every city, city and county, or the board of school trustees of every school district in this State shall, upon petition of the parents or guardians of 25 or more children between the ages of 4½ and 6 years, residing within 1 mile of any elementary school building situate in such city, city and county, or school district, establish and maintain a kindergarten or kindergartens: *Provided*, That such kindergarten or kindergartens when first established shall be established only between the first day of June and the first day of August in any year: *And provided further*, That after the first year in which any kindergarten or kindergartens shall have been established and maintained, that the number of kindergartens which shall be maintained in any city, or city and county, or school district, during any particular school year, shall be determined by the governing body of the schools of such city, city and county, or school district.

The board of education of every city, city and county, or the board of school trustees of every school district in which a kindergarten is established under the provisions of this act, shall, at least 15 days before the first day of the month in which the board of supervisors is required by law to levy the taxes required for county purposes, submit to the county superintendent of schools an estimate of the amount of money which will be required for the maintenance of any kindergarten or kindergartens in their several school districts for the ensuing school year.

The county superintendent of schools shall thereupon examine said estimate and submit copies of the same, with his approval or disapproval endorsed thereon, to the board of supervisors and to the county auditor at the time he submits to them his estimate for the county school tax for the current year. If the county superintendent of schools approves such estimate, the board of supervisors shall, at the time and in the manner of levying other taxes, levy and cause to be collected in the several school districts for which estimates have been submitted and approved as herein provided, the amount so estimated and approved. The fund so levied shall be known as the kindergarten fund of _____ school district (as the case may be), and shall be available for the maintenance of the kindergarten or kindergartens established under the provisions of this section, and the moneys drawn from such fund shall be paid out in the same manner as the moneys from State and county school funds for the maintenance of the elementary schools are drawn and paid out. If the average daily attendance in any kindergarten in any city, city and county, or school district, shall be 10 or less for the school year, the governing body of such city, city and county, or school district, shall, at the close of such

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school year, discontinue such kindergarten. In case a city, city and county, or school district, maintains but one kindergarten, should such kindergarten be discontinued as provided by this section, the funds of such kindergarten shall immediately revert to the elementary schools of the city, city and county, or school district, in which said kindergarten has been located; and in case any city, city and county, or school district maintains two or more kindergartens, the property and funds of a kindergarten which has been discontinued shall revert to the kindergarten or kindergartens which are still in operation in said city, city and county, or school district. The rate of taxation which may be levied for the support of kindergartens in any one year shall not exceed 10 cents on the $100 of the taxable property of such city, city and county, or school district; and such tax for the support of the kindergarten or kindergartens shall be in addition to any other taxes which may be levied for the support of the public schools.—*Political Code, sec. 1617c.*[1]

[1] This section does not cover all provisions of the California law relating to kindergartens. The kindergarten age and the qualifications and licensure of kindergarten teachers are provided for under a number of different headings. An abstract of the provisions relating to these phases of the question will be found in the table on p. 20. The laws of many States group all matters pertaining to the kindergarten in one section, and this, if possible, is a more desirable and effective arrangement.

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DEPARTMENT OF THE INTERIOR
BUREAU OF EDUCATION

BULLETIN, 1916, NO. 46

RECENT MOVEMENTS IN COLLEGE AND UNIVERSITY ADMINISTRATION

BY

SAMUEL PAUL CAPEN
SPECIALIST IN HIGHER EDUCATION, BUREAU OF EDUCATION

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1917

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LETTER OF TRANSMITTAL.

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION,
Washington, November 25, 1916.

SIR: Recent movements in college and university administration have made advisable a longer and more comprehensive treatment of this subject than could well be included in the brief interpretive survey of higher education prepared for the first volume of the Annual Report of the Commissioner of Education. I have therefore asked S. P. Capen, the bureau's specialist in higher education, to prepare the account which is transmitted herewith for publication as a bulletin of the Bureau of Education. The phases of the subject which it treats are of interest not only to administrative officers but also to college professors and students of education in general and to the taxpayers by whom many of these institutions are supported.

Respectfully submitted.

P. P. CLAXTON,
Commissioner.

The SECRETARY OF THE INTERIOR.

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RECENT MOVEMENTS IN COLLEGE AND UNIVERSITY ADMINISTRATION.

INTRODUCTORY.

New literature.—The field of higher education has until very recently seldom been invaded by the educational investigator. Efficiency tests and statistical measurements have been applied with increasing frequency to the work of the lower schools, and a voluminous literature in which the results are recorded has already grown up. The literature of higher education, however, is still preponderatingly of the naïvely philosophical order. The majority of those who write about the college and university are apparently committed to the method in vogue before the "Novum Organum" burst through the thickets of scholasticism. There are many works which tell us what the authors think a college ought to be; many which give the writer's interpretations of the spiritual aspects of college education; not a few which, based on dogmatic postulates, discuss the values of various elements in the college curriculum. The records of the actual facts conditioning collegiate education have thus far been disappointingly rare. Within the past months, however, a number of such intensive studies have appeared.

The review of some of this new literature is essential to a review of current movements in the field of higher education, not only because of the important facts which it reveals, but because of the tendency it represents. A few of the more important documents are therefore discussed in some detail in the following pages.

Entrance requirements.—A double movement appears to be going on with respect to entrance requirements. Although a majority of the institutions of the Northeast seem to be dedicated to the proposition that the chief emphasis in requirements for admission must be placed upon qualitative tests, there appears even in this section a sudden, if not altogether unexpected, reversion to the type of relation with secondary schools that has prevailed in the West. In other parts of the country the movement for increased quantitative requirements for admission goes forward.

Higher education associations.—Perhaps few persons even among those engaged in educational work are aware of the large number of voluntary associations, national or sectional in their membership, which deal wholly or in part with college and university problems. From time to time the establishment of new organizations

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has been noted in the annual reports and bulletins of the Commissioner of Education. Although the foundation of but one such body is recorded this year (the Society for the Promotion of Training for Public Service), meetings of the following organizations have been held at which topics of importance to higher education were discussed:

American Association of Collegiate Registrars.
American Association of University Professors.
Association of American Agricultural Colleges and Experiment Stations.
Association of American Colleges.
Association of American Universities.
Association of Business Officers of the State Universities and Colleges of the Middle West.
Association of Colleges and Preparatory Schools of the Middle States and Maryland.
Association of Colleges and Secondary Schools of the Southern States.
Association of Urban Universities.
Land Grant College Engineering Association.
College Entrance Examination Board.
National Association of State Universities in the United States of America.
National Conference Committee on Standards of Colleges and Secondary Schools.
New England Association of Colleges and Secondary Schools.
New England College Entrance Certificate Board.
North Central Association of Colleges and Secondary Schools.
Society for the Promotion of Training for Public Service.
Society for the Promotion of Engineering Education.

Possibly of the greatest significance were various discussions, which in some cases led to action, relating to questions of classification and standardization. These questions were taken up especially by the National Conference Committee on Standards, the Association of Colleges and Secondary Schools of the Southern States, the Association of Agricultural Colleges and Experiment Stations, the North Central Association of Colleges and Secondary Schools, and the Association of American Colleges. At the meeting of the last-named association a very remarkable report entitled "The Efficient College" was presented. The report describes (1) a hypothetical institution called "The Minimum College"; (2) another imaginary organization which is theoretically efficient, and, for purposes of comparison, (3) the actual status of five existing institutions.

Academic freedom.—The question of academic freedom remains one of the vital issues in university and college education. Its remoter implications involve the whole question of institutional control and touch upon the obscure relationships of institutions and large accumulations of property. The final adjustment of the issues does not appear to be in sight. As has already been reported, the question has been the subject of several investigations by the American Association of University Professors. Four new reports by committees of this body during the past academic year constitute

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valuable additions to the discussion of the subject. They are summarized on pages 52–60 of this bulletin.

UNIVERSITY SURVEYS.

University surveys have undoubtedly occupied the forefront of attention in the field of higher education during the past few months. Viewed in its relation to the evolution of American higher education as a whole, the university survey is chiefly noteworthy as symptomatic of a definite stage of development. Reference has already several times been made in the annual report of the Commissioner of Education to the fact that the era of mushroomlike expansion is past. The passion for mere bigness has cooled. "Justification by numbers" is no longer the corner stone of the faith of institutional officials. Even vast investments in buildings and appliances have ceased to assure presidents and governing boards of the unimpeachable educational success of a collegiate enterprise. In other words, in this field, as elsewhere, the Nation is coming to adopt qualitative rather than quantitative criteria of excellence. The direction of higher education is passing from the hands of the promoter into those of the administrator. The survey, which at its best is a critical, nonpartisan, expert examination of financial facts and records, educational policies, and the social and economic setting of an institution, signalizes this transfer of leadership.

It may be worth while to call attention to the way in which the modern university administrator views his task. This has been quite strikingly revealed by the several surveys already made. The new type of university executive sees that institutional policies can be ultimately successful only in so far as they square with such unyielding contingencies as the population and wealth of the district which the university serves and the social demand for various types of training. The president and his associates are therefore under obligation to know the facts—the facts about their own institution, the facts about its bailiwick, the facts about other institutions having similar purposes and comparable support. Policies and administrative procedure must rise from this foundation. University administration thus takes on something of the nature of a scientific problem. It appears to be most successfully practiced by men of scientific training and habit of mind. The main purpose of a university survey is to make sure that, as far as possible, no contributory factor in the administrative problem has been overlooked or misinterpreted.

It should be noted that a large number of present-day university administrators, inspired by the example of the business world and spurred by the penetrating inquiries of trustees and legislators, have for some time been assembling and codifying all available statistical

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data bearing on institutional management. Many institutions have, indeed, subjected themselves to a process that has been characterized by the offensive and hybrid term "auto survey." In principle, therefore, the university surveys of the past two or three years do not represent a new phenomenon. The novel feature is the substitution of outside experts for the officials of the university itself. It is believed that by this means a degree of objectivity comporting more closely with the scientific purpose and method has thus far been secured. Naturally, also, as the result of the earnest study of many individuals, some new lines of inquiry have been discovered.

What the final effect of any particular survey will be on the growth and standing of the institution or institutions examined it is still too early to determine. University surveyors, whether domestic or imported, are dealing with areas as yet unsubjected to scientific measurement. They are unprovided with approved instruments of precision. They may quite naturally fail for a time to define with accuracy the peculiarities and limits of the field of university administration. A period of experimentation is, indeed, to be expected. Nevertheless, certain standard tests and processes of investigation seem to be emerging from the numerous studies of institutional management which promise to be permanently helpful to university administrators. Some of these are noted in the following paragraphs.

University surveys have thus far, for the most part, dealt with State institutions. It is worth while in this connection to emphasize again one other aspect of the survey movement which was noted in the report of the Commissioner of Education for the year 1915. State legislatures are responsible for two of the comprehensive surveys of higher institutions undertaken during the past year. Several others projected for the near future have likewise been ordered by State lawmaking bodies. In each case the supposition is that legislation (or board action) relating to the support, the functions, and the control of the institutions concerned is to be based on the findings of survey commissions. The fact that legislatures are becoming convinced that careful, impartial investigation should precede legislative action affecting higher education constitutes an auspicious omen for State-supported institutions. It signifies the gratifying, if tardy, recognition of the sphere of the educational expert in the determination of university policies and in the appraisal of the technical phases of university management. It points to the final release of State institutions from the ancient danger of undue political interference.

The most important educational surveys undertaken during the past academic year are those which have been made under the direction of the Bureau of Education or in which the bureau has participated. These have involved the State higher institutions of Iowa,

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the State higher institutions of North Dakota, the University of Oregon, and the State higher institutions of Washington. A brief account of the survey of the University of Oregon was included in the commissioner's report for 1915.

SURVEY OF STATE-SUPPORTED HIGHER INSTITUTIONS OF IOWA.

In May, 1915, the Iowa State Board of Education requested the Commissioner of Education to undertake the direction of a survey of the higher institutions of the State[1] and to employ such assistants as he deemed necessary. The board's main purpose was to secure from the survey assistance in the preparation of the next budget for the three collegiate institutions under its control. It specifically stated that it had no desire to reopen the coordination question (referred to in the reports of the Commissioner of Education for 1912, Vol. I, p. 90, and 1915, Vol. I, p. 145), which had aroused such intense feelings among the partisans of the institutions. Nevertheless, it wished advice as to whether or not extensive duplications of courses, schools, and equipment might be reduced without complete reorganization. It presented to the commissioner a bill of particulars asking that inquiry be made into a number of matters, of which the following were perhaps the most important:

Duplication in courses in education and psychology between the State university and the college of agriculture and mechanic arts.

The extent to which liberal arts courses are offered at the college of agriculture and mechanic arts.

The status of graduate work at each of the three institutions.

The feasibility of consolidating extension work.

The adequacy of the educational plants and the economy exercised in their use.

The Commissioner of Education appointed, to conduct the survey, a commission composed of the following persons:

Dr. James R. Angell, dean of the faculties of arts, literature, and science of the University of Chicago.

Dr. Kendric C. Babcock, dean of the college of arts and sciences of the University of Illinois.

Dr. Liberty H. Bailey, formerly director of the New York State College of Agriculture.

Mrs. Henrietta W. Calvin, specialist in home economics, Bureau of Education.

Dr. Hollis Godfrey, president of Drexel Institute, Philadelphia (consulting member).

Dr. Raymond M. Hughes, president of Miami University.

Dr. Samuel P. Capen, specialist in higher education, Bureau of Education (chairman).

After the commission had completed its investigations on the ground and was ready to prepare its report, it met with the State

[1] Exception being made of the School for the Blind at Vinton.

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board of education and urged that it be allowed to exceed the limits laid down for it. It declared that other issues fundamental to the situation had constantly obtruded themselves upon its attention and must be taken into account if its report were to have any value. The board finally agreed that the commission should be free to treat any parts of the educational situation in Iowa that might in its judgment be necessary.

The completed report was placed in the hands of the board of education on February 15, 1916, and has since been published as a bulletin of the Bureau of Education. It contains an introduction, 17 chapters, and an appendix. The following are the chapter headings:

1. Higher education in Iowa.
2. A study of the expenditures of the Iowa State institutions.
3. Duplication and the principle of major lines.
4. Graduate work.
5. Liberal arts at the State college.
6. Extension work.
7. Duplication of work in education and psychology.
8. Home economics.
9. Subcollegiate work.
10. Courses in journalism.
11. Courses in commerce.
12. Work and remuneration of the teaching staffs.
13. Utilization of buildings.
14. Building costs.
15. Physical education of women.
16. Observations on State and institutional administration.
17. A summary of recommendations.

Certain general discussions and some of the devices employed in recording significant facts are important enough to be briefly summarized here.

The report declares in the introduction that, in accordance with its understanding with the board, the commission feels authorized to venture upon a general consideration of the question of duplication. It believes it could not consistently make recommendations regarding the prevention of duplication in certain specified lines without taking into account, at the same time, the whole extensive area of duplication. It tries to show that almost all cases of duplication are symptoms of the same organic defect and that these symptoms can not be permanently remedied by a series of small palliative measures, but only by action designed to remedy the defect itself. It proposes a general principle which it believes, if applied, will achieve the desired result.

The principle referred to is defined and illustrated in the third chapter of the bulletin, and gives rise to the first of the 52 recommendations presented in the course of the report. This recommendation and a portion of the argument used in its support are:

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THE ADOPTION OF THE PRINCIPLE OF MAJOR AND SERVICE LINES OF WORK AT THE THREE STATE INSTITUTIONS.

The primary difficulty, so far as the three higher institutions are concerned, lies in the lack of clear definitions of scope, particularly as between two of them. * * * At one time it was thought to be the wisest policy in many States to separate the land-grant college and the university, because their fields of work were supposed to be incompatible. At present, when all institutions of higher learning are so rapidly expanding, there is widespread feeling that the land-grant college is best united with the university or incorporated into it. When we have learned how to develop a harmonious State procedure, however, we may find certain very marked advantages in the separation. At all events, it is the responsibility of the State in such cases to make a coherent plan to prevent conflict. This is now the major problem in educational administration in the United States, but it ought not to be difficult of solution if the adherents of the different institutions once accept certain fundamental principles. The conflicts between the different kinds of institutions result, in large part, from an attitude of mind. Mere duplication of courses of study may not be any more disadvantageous or more to be deplored between two institutions than between the parts of one institution which is the size of the two. * * *

In dealing with the problems of duplication as manifested in the practice of the Iowa State institutions, the Commission has been guided by what may be described as the principle of "major and service lines" of work. In accordance with this principle, each State institution should have assigned to it certain major fields which it may be expected to develop to their fullest extent. Agriculture at the State College of Agriculture and Mechanic Arts is such a major line. Latin, German, French, political science, psychology at the Iowa State University are such major lines. Service lines are such subordinate subjects as are essential to the proper cultivation of a major line. The amount required is generally not large. English is such a service line for engineering and agriculture at the State College. Institutions may well overlap as regards the relation of their service lines to one another, and more particularly as regards the relation of their major to their service lines. English is a major line at the State University and a service line at the State College, but there should be no material overlapping of major lines.

As between the State University and the State College this division would reserve, at present, to the institution at Ames agriculture, home economics, veterinary medicine, and certain departments of engineering to be later determined. It would make all other subjects at Ames service subjects, in no case to be developed beyond the point at which the needs of the major subjects are supplied. Consequently, a moderate amount of elementary collegiate work might be given at the State College in the languages, the humanities, and certain of the sciences; but they would, presumably, never go beyond these rudimentary stages. At the State University agriculture and certain fields of engineering, if cultivated at all, would, in the same way, have a place only as service subjects, contributory to the major lines allotted to that institution. Certain subjects do not fall readily into line on such a principle of division; but these cases of overlapping, the commission believes, may be amicably settled by a conference of representatives of the faculties and a committee of the State board. * * *

Once this principle of major and service lines is adopted, the whole situation clears up, not only as regards intramural work, but also as regards extension work. An institution would be permitted to do extension work only in a major line.

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The drastic application of the principle leads into that most dangerous of all disputed areas in State-supported higher education—the adjustment and redistribution of the work in engineering at the State university and the land-grant college. The report attacks this question in the third recommendation. The recommendation and a portion of the supporting argument are as follows:

THE READJUSTMENT OF WORK IN ENGINEERING AT THE STATE UNIVERSITY AND THE STATE COLLEGE ACCORDING TO ONE OF THREE METHODS.

We are not able to convince ourselves that there can be any justification for sweeping duplication in the range of advanced professional work. It would certainly strike every unbiased observer as absurd to urge that there should be two medical schools conducted by the State at different points. It would seem equally absurd to conduct two law schools. * * * The commission is also of the opinion that the continuance of two schools of engineering as at present organized is uneconomical and indefensible, especially in so far as it concerns the development of upper-class and graduate work. At least three methods of readjustment are possible:

1. The horizontal, by which one school would become a strictly graduate institution and the other school an undergraduate institution. * * * In the judgment of the commission this method is not at present applicable to the Iowa situation. Unless the principle were applied drastically, so as to require a bachelor's degree for entrance to the more advanced classes, the difficulties of the present academic situation would not be materially lessened; and the possible overlapping in the field of extension work would require altogether separate consideration and treatment.

2. The union of the two schools in one place, under highly expert direction. The commission is unanimously convinced that this is the method by which engineering work under State support in Iowa could best be maintained and developed. No other method will so certainly insure the permanent elimination of the causes of friction, irritation, unwholesome competition, and wasteful duplication of high-class men and equipment for advanced work. It is scarcely conceivable that the State, if it did not now have two schools of engineering, would consider the establishment of more than one. * * *

3. If this second method is judged impracticable of application, considering the present condition of institutional and popular sentiment in Iowa, the commission recommends that a definite vertical (or topical) division of engineering should be carefully worked out by the board of education in conference with a small group of expert engineers, who should be wholly unconnected with either institution, and each of whom should be a member of one or another of the four American societies of civil, electrical, mechanical, and mining engineering.

Still another recommendation affecting the distribution of the functions of the State institutions is that the last two years of the liberal arts courses at the Iowa State Teachers' College be discontinued. On this point the commission says:

The commission is disposed to urge the wisdom of this proposal on several grounds. In the first place, it seems reasonably clear that the institutions at Ames and Iowa City are at present abundantly able to care for all students who may be expected to seek the bachelor's degree in a State institution in Iowa. * * * In the second place, the commission feels certain that at present the

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atmosphere of the institution at Cedar Falls is not unequivocally collegiate, and that the students who now receive training there for the bachelor's degree are likely to miss certain valuable elements in such training. * * * In the third place, the amount of work now offered as of third and fourth year college grade is relatively small and may be regarded as only barely sufficient to round out the senior college curriculum. * * * Under these circumstances, the commission feels that the expenditure of money and energy represented in keeping up the last two years of collegiate work at Cedar Falls is probably not to be justified on its merits.

In place of this, however, it suggests that the regular normal courses for the training of elementary teachers be extended from two to three years above high-school graduation, but that no degrees be awarded for completion of these courses. The commission indorses such a procedure on the ground that teachers in elementary schools need a broader culture and more thoroughgoing scholarship than can be secured in the two years ordinarily devoted to professional preparation. The report also calls attention to the fact that the Iowa State Teachers' College, in view of the physical limitations of its facilities for practice teaching, can not train all the teachers needed in the elementary schools of the State. It recommends, therefore, the establishment of additional normal schools.

It will be observed that the report of the commission recommends reorganizations which are strikingly similar to those contemplated in the order of the State board of education issued in 1912, but afterwards rescinded in response to legislative action and public protest. The report makes clear that the commission approached the study of the situation without preconceptions and with no intention of proposing radical changes in the functions of the institutions. It was led to its conclusions by the force of the facts.

At the end of the report the commission takes up certain matters relating to the general administration of higher and secondary education in the State which are probably of more than local interest. It will be remembered that the Iowa Legislature, in 1909, abolished the separate governing boards of the State higher institutions and created in their place a single board of education, composed of nine members. This board is assisted and advised by a paid finance committee, which devotes its whole time to the work assigned it. The finance committee is elected by the board from outside the membership of the board. The board also maintains a high-school inspector, charged with the duty of examining and accrediting high schools for the higher institutions. By a later enactment the legislature reorganized the State education department. The State superintendent of public instruction, appointed by the governor, is given general control of the public elementary and high schools of the State. His office is also authorized to appoint high-school inspectors to assist in enforcing such standards as he may establish.

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While admitting that discussion of matters relating to this office are entirely outside of its legitimate province, the commission nevertheless recommends the readjustment of the official relationships between the office of superintendent of public instruction and the State board of education. The following comments and proposals present the substance of the discussion:

The legislation that has made the office of the State superintendent independent of the State board of education, together with the legislative action granting subsidies to certain high schools which comply with requirements administered through the office of the State superintendent of public instruction has made possible a disparity between the criteria of standardization as represented in the recommendations and requirements of the superintendent of public instruction, on the one hand, and the requirements of the institutions of higher learning on the other, especially as the latter are administered through the State board's high-school inspector and his assistants. The commission is of the opinion that * * * it is unwise to have perpetuated a situation which contains a constant menace of friction, tending to stimulate controversial relations among the educational institutions of the State or among the official representatives of the different divisions of its educational system. Several remedies suggest themselves.

In a number of States, the State superintendent of public instruction is ex officio a member of the governing board of the State University. * * * It appears evident to us that the association of the office of the superintendent with the board in the direct management and control of the higher institutions would at once bring about an understanding by each agency of the plans and purposes of the other, and would do away with any further possibility of conflict in the determination of high-school standards, a matter in which both are vitally concerned.

A still more radical alteration of the State's administrative machinery, but one which seems to the commission much more likely to result in the smooth operation of all its parts, would be the extension of the jurisdiction of the board of education to include the public elementary and high schools, and the provision for the appointment of the superintendent of public instruction by the board.

A final recommendation involving a question of general policy is that the presidents of the State higher institutions be included ex officio in the membership of the State board of education without power to vote. Commenting on this recommendation, the report says:

The commission finds it difficult to believe that the exclusion from the sittings of the board of education of the presidents of the State institutions of higher education (save on receipt of special invitation) can commend itself permanently as a wise policy. We are unanimously of the opinion that the present procedure subjects the presidents of these institutions to conditions which are incompatible with the dignity of their office and likely to prove provocative of serious misconceptions in the State. * * * We question most seriously both the propriety and the ultimate efficiency of a system which gives them no official representation before the board, but leaves it entirely to the initiative of the board to call them in when it sees fit. Such a procedure inevitably puts the administrative head of an institution in the position of a

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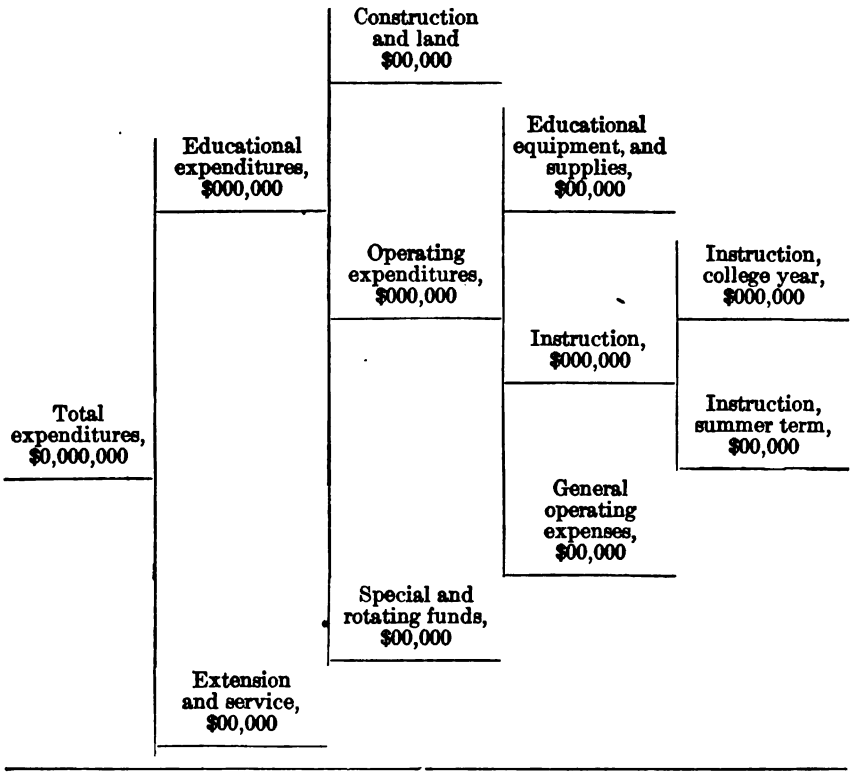
suppliant for favors instead of in the position of an authorized expert presenting to the responsible authorities the interests of the institution immediately in his charge.

Moreover, under present conditions it is difficult for the executives to view their problems as concerned solely with the best service of the State rather than with the upbuilding of a particular institution. If they were regular members of your body, even though enjoying no vote, their outlook on the situation as a whole would necessarily be at once enlarged and altered and you would unquestionably enjoy their loyal cooperation in meeting your problems.

The portions of the report thus far summarized, involving general administrative matters and broader question of State policy, will no doubt be more widely read and discussed by students of education than any others. University administrators, however, are likely to be quite as much interested in several devices for presenting educational and financial data bearing upon efficiency of management of the institution.

The report presents the expenditures of the three institutions arranged in accordance with the following diagram, a form originally used by the administration of Miami University:



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Three of these categories need explanation. *Special and rotating funds* include expenditures from prize funds, boarding and rooming departments, and special funds available only for indicated purposes apart from instruction. The category *operating expenditures* includes all expenses for the annual maintenance of the institution aside from dormitories and boarding departments. The subdivision *general operating expenses* comprises what might be classed as the overhead expenses of the institution, the salaries of administrative officers, janitors, etc., and the general expenses of administration.

In calculating the average annual cost per student the report makes use not of the catalogue enrollment, but of the average attendance. The catalogue enrollment generally includes every person who has attended the institution for any part of the year of 12 months. The average attendance is the average of the largest attendance in each of the two semesters. This figure, which is as a rule about a third smaller than the catalogue enrollment, really represents the maximum pressure on the plant and the teaching staff at any one time. To obtain the average annual cost per student, the expenses included under the head of *operating expenditures* (minus the cost of instruction for the summer session) are divided by the average attendance. The commission found that the average annual cost per student for the last two academic years at the State University was $274.75, at the State College of Agriculture and Mechanic Arts $270.50, and at the State Teachers' College $169.

Another interesting and novel arrangement of institutional expenditures and their proper apportionment among the students in attendance appears in the chapter on building costs. The following table gives the gist of this study:

Items of comparison.	Cost of buildings.	Square feet of floor surface.	Cost per square foot of floor.	Cost per student.	Square feet of floor per student.	Average enrollment of students.
STATE UNIVERSITY OF IOWA.						
Buildings used in common	$380,125	124,028	$3.07	$146	47.7	.....
Buildings used for classes and laboratories	1,512,859	494,351	3.06	582	190.0	.....
Total	1,892,984	618,379	3.06	728	237.7	.....
Students in 1915–16	.....	.....	.....	.....	.....	2,600
IOWA STATE COLLEGE.						
Buildings used in common	435,962	131,323	3.32	167	50.5	.....
Buildings used for classes and laboratories	1,548,085	513,157	3.02	595	197.5	.....
Total	1,984,047	644,480	.....	762	248.0	.....
Students in 1915–16	.....	.....	.....	.....	.....	2,600
Farm buildings	45,700	57,390	3.08	17	20.7	.....
IOWA STATE TEACHERS COLLEGE.						
Buildings used in common	388,000	150,712	2.58	222	86.0	.....
Buildings used for cla ses and laboratories	498,000	272,714	1.82	284	156.0	.....
Total	886,000	423,426	2.10	506	242.0	.....
Students in 1915–16	.....	.....	.....	.....	.....	1,750

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This table shows that an average of 243 square feet of floor space per student is provided. The average cost per square foot of floor space of six buildings recently erected was $2.96. This amounts to $720 per student. Including furniture and equipment, the cost per student is probably $750 to $800. When the plant is full to saturation, therefore, every increase of 100 in the average attendance entails the provision of from $75,000 to $80,000 worth of new buildings. Adding the cost of instruction and maintenance per student (exhibited above), it appears that an increase of 100 in the average attendance necessitates an initial expense to the State of about $100,000.

Bearing on the question of the utilization of the plant for teaching purposes, the report contributes a technical chapter containing the results of a careful engineering study of a group of typical buildings at each institution. The method of this study should prove valuable, not only for Iowa institutions, but for universities and colleges in general. The available building space is first divided into instructional space (defined as space used for the primary function of the institution—teaching—and distinguished by the presence of a student or a group of students for the purpose of instruction), and accessory space (defined as space not used specifically for teaching purposes but to a large degree essential to the plant because of the physical features of building construction and the needs of the administrative functions). Although waste or efficient use may equally well occur in instructional or in accessory space, attempt is made to study merely instructional space and its relation to the whole plant. Instructional space is further divided into scheduled and unscheduled space. Scheduled space is that for which the commission received a statement of definite student capacities and definite hours of actual use for teaching purposes. For unscheduled space such information was not furnished. It appears that at the State University 39.75 per cent of the total building space is instructional space, and at the State College 44.15 per cent is instructional space, and at the State Teachers' College 44.87 per cent is instructional space. The scheduled space is then analyzed to show the occupancy and time ratios, i. e., the proportion of time out of a working week of 44 hours that each room available for teaching is occupied to its full capacity. These ratios are first determined for each scheduled classroom or laboratory, then for the scheduled instructional space of each building, and finally in the same manner for the whole plant. The per cent of plant utilization results when the combined occupancy and time ratios are multiplied by the per cent of scheduled instructional space. According to this calculation, the State University showed

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an average plant use for teaching purposes of 19.8 per cent, the State Teachers' College of 23.9 per cent, and the State College of Agriculture and Mechanic Arts of 26.4 per cent. The report takes pains to caution the reader against an interpretation of these figures too unfavorable to the efficiency of the management of the institutions. The percentages seem low, but it is pointed out that 100 per cent utilization is absolutely impossible. Moreover, there is as yet no norm of possible use. No similar studies have been made, except of one city institution (Drexel Institute), where conditions favor an extremely high per cent of utilization. That study and the present one, however, indicate that 40 per cent of utilization would be very high indeed, and that 35 per cent would represent rarely successful utilization for a State university. The conclusion drawn from the results shown by the three institutions here studied is that some economies in the use of buildings can be secured without noticeable hardship either to the students or professors, by careful rostering of available classrooms and by preventing department heads from preempting valuable space for fancied departmental needs or for exhibition purposes. The relatively high per cent of utilization at the State College is chiefly due to the care there exercised in these matters.

The chapter devoted to the work and remuneration of the instructional staffs of the three institutions proposes certain standards and makes use of at least one new unit of measurement. Three standards relate to the size of classes. They are:

(*a*) In lecture work a professor may meet effectively as many as can comfortably see and hear him.

(*b*) In recitation or quiz, 30 in a section is probably the largest number that can be effectively handled, but the desirable maximum would be from 20 to 25.

(*c*) In laboratory work it is commonly agreed that one instructor should be provided for every 15 or 16 students.

The new unit is the "student clock hour," which is defined thus: "One student under instruction in lecture, quiz, or laboratory for at least 50 minutes net, represents one student clock hour." This unit, it will be observed, differs from the "student hour" used in some other studies (see Report of the Commissioner of Education for the year 1914, Ch. VII, Vol. I, p. 174) in that laboratory hours are not discounted. For example, a student in chemistry, one hour in lecture, one hour in quiz, and four hours in laboratory in a week would be counted as receiving six student clock hours of instruction.

Using this unit the report then proceeds to set up standard teaching loads for the instructors in different types of institutions. While admitting that a definite number of student clock hours can not be fixed for the individual instructor, it is declared that reasonable de-

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partmental averages may justly be established. Departments in universities where research work is encouraged and expected may fairly carry 250 student clock hours per instructor per week. In distinctly undergraduate colleges a departmental average of 300 student clock hours per instructor per week may be regarded as a reasonable norm. The commission believes that the number of student clock hours carried furnishes a more equitable measure of the teaching burden than does the number of "credit hours" or "semester hours," which are the units commonly used in estimating the amount of an instructor's work.

The report also proposes one other standard, namely, the minimum average salary for a department in institutions of collegiate grade. This, it is affirmed, should be at least $2,000 a year. That there is a close correlation between the careful and even distribution of teaching loads among members of the staff and the salaries paid is pointed out in the following paragraph:

> If the curriculum demands that each student shall be under instruction on the average for 20 hours a week in lecture, laboratory, and recitation, then for every 1,000 students 20,000 student clock hours of instruction must be provided by the administration. If instructors carry an average of 300 student clock hours each, 67 instructors will be required. It is also clear that, with a fixed sum for institutional maintenance, the best salaries can not be paid unless the average load of student clock hours closely approaches the desirable maximum. For instance, if an institution providing 20,000 student clock hours of instruction has $134,000 to spend on teachers' salaries and employs 80 instructors instead of 67, the average load of student clock hours will be reduced, but so will the average salary.

Tabular views of the departmental loads of student clock hours at the three institutions during the last academic year show institutional averages at the State University of 252, at the State College of Agriculture and Mechanic Arts of 312½, and at the State Teachers' College of 316. At the State University the distribution of the load among the different departments is fairly even; at the other two institutions there are large inequalities.

The commission was requested by the State board of education to recommend possible avenues of expansion for the State institutions. As the report is silent on this point, however, the implication is that the commission judged the higher educational needs of the State to have been already largely met by existing provisions. With regard to the possible establishment of a school of commerce at the university, concerning which question was raised in the board's instructions, the report recommends, in view of the economic and social conditions of the State, the moderate expansion and better correlation of the courses at present offered in various departments of the university rather than the creation of a separate school.

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SURVEY OF THE STATE HIGHER INSTITUTIONS OF WASHINGTON.

Mention was made in the last annual report of the creation by the Washington Legislature, in 1915, of a commission composed of six members of the legislature, charged with the duty of making a comprehensive survey of the State university, the State college, and the three State normal schools, and such general survey of the public-school system as might be necessary. The commission was given authority to employ experts. It requested the assistance of the Commissioner of Education, who appointed the following persons as a committee to investigate the institutions and to report their findings to the commission: Samuel P. Capen, specialist in higher education, Bureau of Education (chairman); Alexander Inglis, assistant professor of education, Harvard University; and Harold W. Foght, specialist in rural school practice, Bureau of Education. In the latter stages of its work in the State this committee was assisted by the Commissioner of Education in person. The committee presented its report to the Washington Commission of Educational Survey on April 15, 1916. On April 30 the commission reported to the governor of the State, recommending that certain legislation bearing on the control, the support, and the functions of public educational institutions be passed by the next legislature, and submitting by way of evidence the report of the bureau's committee. Bulletin No. 26, 1916, Bureau of Education, contains both documents. The report of the commission followed, in the main, the bureau's recommendations. In a few instances it recorded a different opinion. Limitations of space prevent the detailed discussion of these reports. In the following paragraphs an outline of the contents of the report of the bureau's committee is given. A few of the more important recommendations are noted, and mention is made of the principal divergencies between the two reports.

The bureau's report consists of three sections. Section I deals with higher education in Washington viewed as a whole, then discusses the financial and educational management and interrelations of the State University and the State College, and finally presents recommendations bearing on the proper functions of each and the measure of support required by each. Section II deals with the public schools in general, with special reference to their support, the system of administration, the supply and preparation of teachers, and the certification of teachers. Section III treats of the State normal schools, taking up particularly the primary function of the normal school, the contribution of the Washington State normal schools to the teaching body of the State, the equipment of each normal school, and recommending certain steps which normal schools should take to raise the standards of the teaching profession. The report contains 41 recommendations.

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The question of the legal authority of the State University and the State College to offer certain duplicating courses has often been raised. The bureau's committee finds that neither institution has exceeded the limits prescribed for it or allowed it by the legislature of the State. Wherever either has offered courses already given by the other, there has been sanction for such duplication in the laws and statutes under which the institutions operate; but the committee emphasizes the fact that above mere legal justification lie the interests of the State.

Any proposals looking toward redefinitions of the spheres of the two collegiate institutions in Washington must be made in the light of several unusual factors, to wit: (1) The vast natural resources of the State, the development of which will demand unusually large numbers of persons scientifically trained in agriculture and engineering and will depend upon the continued progress of scientific knowledge in these fields; (2) the great size of the State; (3) the separation of its population by a barrier of mountains and arid territory into two relatively compact groups and the consequent development of strong sectional consciousness; (4) the germination of what promises to be a phenomenally varied and dynamic industrial and commercial activity in one of these groups.

Re-enunciating the principle of major and service lines laid down in the Iowa report, the committee recommends the partial redistribution of the functions of these institutions. Both now maintain departments of architecture, education, engineering (chemical, civil, electrical, mechanical, mining), forestry, liberal arts, and pharmacy. The report urges the abandonment by the State College of architecture, chemical engineering, forestry, and pharmacy as major lines. It declares that only one school of mining engineering should be maintained, but suggests that its appropriate location be determined on consultation with mining experts. It recommends the sharp differentiation of the departments of education at the two institutions. In view of local factors, which are discussed at some length, it councils the continuance of undergraduate work in civil, electrical, and mechanical engineering, and in liberal arts at both institutions. It proposes that the university abandon extension work in home economics. Graduate work, except in the departments maintained by the State College alone, should be developed exclusively at the university.

Elaborate analyses of costs, of the geographical distribution of the student bodies in the different departments at the two institutions and of the work and remuneration of the teaching staffs, are used in support of the recommendations. The average cost per student at the State University was found to be $192.77, and at the State College $289.79. A calculation showing the cost of a student clock hour

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of instruction in each of the principal departments at both institutions is the chief contribution to financial statistics made by this report. Commenting on the support of the State University and the State College, the report says:

(1) Washington has not been spending as much money on its State collegiate institutions in proportion to their needs and the State's wealth as many other progressive States. Both should be more liberally supported.

(2) The State College is for the most part well housed, and the pressure on its plant is not extreme. On the other hand, the salaries paid its teachers are considerably below what should be paid to competent men in institutions of this character. In the last two years the amount spent per student has been somewhat higher than the per capita outlay in other institutions, which the Bureau of Education has studied. However, the committee especially calls attention to the fact that, in order to meet the needs of the State in the direction of agricultural instruction, extension, and experimentation alone, this institution will require largely increased appropriations.

(3) The State University has for many years been starved. It is housed, in part, in buildings which are unworthy of a great university in a great and wealthy State. Its expense per student during the last two years is much lower than the similar expense in any institution of university rank which the Bureau of Education has studied. The legitimate expansion of the institution, especially the development of a school of commerce, demands large increases in its support.

Probably the most important recommendations of the section of the report dealing with public schools are—first, those calling for the raising of the professional requirements for holding the county superintendency and for the increase of the salary of this office (a salary scale ranging from $1,200 to $3,000 is proposed); second, those looking toward the establishment of definite professional and academic qualifications for all persons occupying teaching positions, and the consequent reorganization of the State system of certifying teachers; and third, those advising a fundamental revision of the common-school course of study with particular reference to the varying needs of urban and rural children.

The section on normal schools proposes certain standards for a satisfactory system of teacher preparation. They are, in brief:

1. The entrance requirements to normal schools should be raised to graduation from a four-year accredited high-school course.

2. The lowest grade of certificate to be issued by the normal schools should be two years above high-school graduation.

3. The ultimate standard of attainment for all persons teaching in the State should be graduation from an accredited high school and at least two years of professional preparation. (The committee recommends specific steps by which this standard may be enforced.) However, the process of elimination should be gradual to permit teachers in service to meet the new requirements without causing too great hardships.

4. The normal schools should offer differentiated courses of study, two and three years in length based on high-school graduation. The certificates should eventually be given at the end of the two-year courses and the normal diploma at the end of the three-year courses.

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5. The normal schools should organize a thoroughgoing extension service similar to the Iowa system for the teachers in service.

6. No license to teach should be made permanent until the candidate has given evidence of progressive scholarship. The State board of education should prepare courses of study including both professional and cultural subjects for the further training of teachers in service, and within five years of the time of the receipt of a provisional certificate every candidate should be required to pass examinations in the subjects included in these courses.

The legislative steps necessary to secure these ends are then presented in some detail. This is probably the most constructive portion of the whole report. If the provisions suggested are put into operation, Washington will have taken steps to put the training of its public-school teachers upon an advanced professional basis.

It has been said that the survey commission accepted the major part of the recommendations of the bureau's committee. The principal divergencies occur in the proposal made by the two bodies regarding the differentiation of the functions of the State University and the State College. The commission does not indorse the bureau's recommendation that pharmacy be abandoned as a major line at the State College, nor does it agree that there should be but one school of mines in the State.

The law providing for the support of the five higher institutions by a millage tax and specifying the portion of the tax to be assigned to each institution was enacted in 1911 and was to remain operative for six years. One of the commission's tasks was to examine the present rate and distribution of the millage tax and to report to the legislature of 1917 whatever modifications might appear desirable. Indeed, this was doubtless the most important of the commission's functions. The present tax is distributed as follows:

State University	.475
State College	.325
Bellingham State Normal School	.09
Cheney State Normal School	.09
Ellensburg State Normal School	.07
Total	1.05

Convinced by the detailed financial statements made in the bureau's report the commission, after long deliberation, unanimously recommended that the total tax appropriations for higher institutions should be for the immediate future 1.90 mills on every dollar of taxable property, this amount to be distributed among the institutions as follows:

State University	.90
State College	.55
Bellingham State Normal School	.18
Cheney State Normal School	.1425
Ellensburg State Normal School	.1275
Total	1.90

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THE SURVEY OF THE STATE HIGHER INSTITUTIONS OF NORTH DAKOTA.

The last annual report gave an account of the legislation creating the State Board of Regents of North Dakota and providing, as a

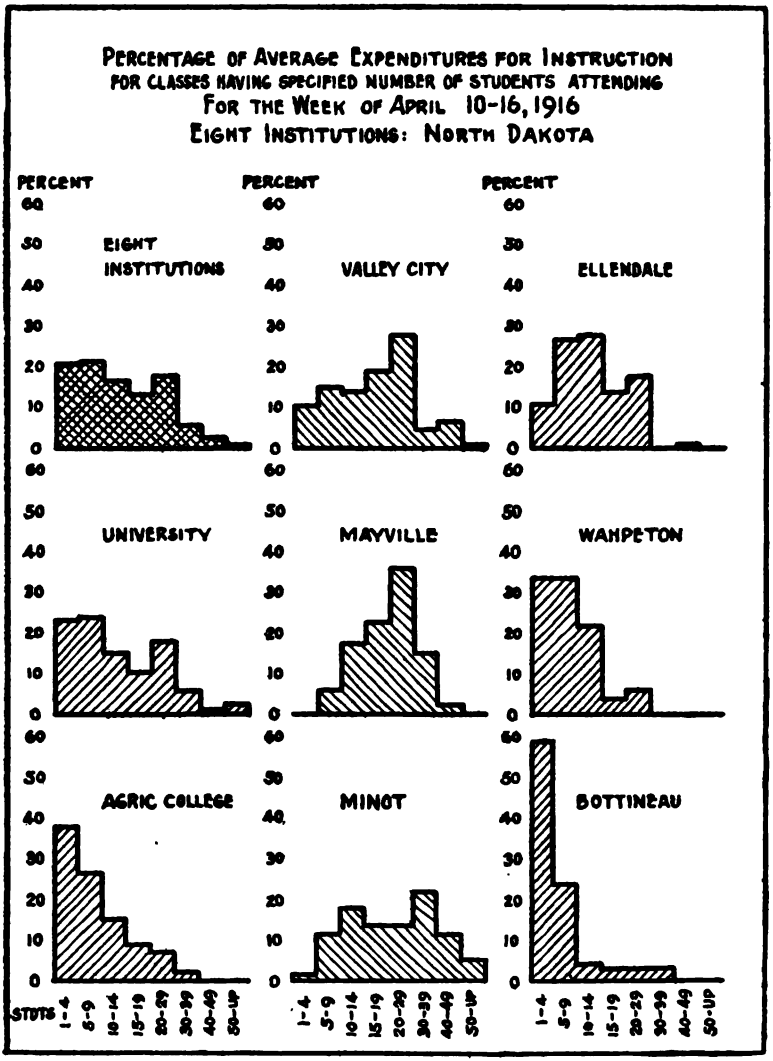

FIG. 1.—Percentage of average expenditures for instruction for the eight institutions of the North Dakota Survey. (Bulletin of the Bureau of Education, 1916, No. 27.)

preliminary to the appointment of the commissioner of education, the new board's executive officer, for an educational survey by a competent expert or experts of the nine institutions under the board's control. In the spring of 1915 the board invited Dr. E. B. Craig-

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head, former president of the University of Montana, to take part in this survey. It also requested the assistance of the United States Commissioner of Education. The commissioner consented to lend the aid of the Bureau of Education in this enterprise if the survey might be made under his general direction. To this the State board of regents consented. The commissioner accordingly appointed the following committee to take charge of the survey: Dr. William T. Bawden, specialist in industrial education, Bureau of Education (chairman); Dr. Edwin B. Craighead, former president of the University of Montana; Dr. Lotus D. Coffman, professor of education, University of Minnesota. The Commissioner of Education was intimately associated with the work of the survey through its course and assisted in the preparation of the report. The report was filed with the State board of regents in July, 1916. It covered the following topics:

1. General statement.
2. Bill creating State board of regents.
3. Laws touching public education in North Dakota.
4. The State of North Dakota.
5. Maps and statistical tables.
6. An efficient State system of education.
7. Preliminary survey.
8. The University of North Dakota.
9. The agricultural college.
10. The normal schools of North Dakota and their relation to the rural schools.
11. The industrial schools:
    (1) The State School of Forestry, at Bottineau.
    (2) The North Dakota Academy of Science, at Wahpeton.
    (3) Normal and Industrial School, at Ellendale.
12. The State Library Commission.
13. Rural population and the rural schools.
14. The high schools of North Dakota.
15. The classification and standardization of educational institutions.
16. Summary of recommendations.
17. Conclusions.

The document, somewhat revised, has since been published as a bulletin of the Bureau of Education (1916, No. 27).

In addition to the statistical material similar in content though not always in form to that presented in the other reports just discussed, the survey contains a novel analysis of the size of sections at the institutions studied and the proportion of the total expenditure for teaching devoted to the instruction of classes of various sizes. Each institution was asked to prepare a detailed report on the number of students in attendance during a single week, the week of April 10, 1916. The results are summarized thus:

During the week in question there were 143 meetings of classes at which only one student was in attendance, 195 classes at which two students were

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present, 116 classes at which three students were present, 208 classes at which four students were present; a total of 662 classes in the eight institutions having less than five students in attendance. These 662 classes constitute slightly more than one-fifth—20.6 per cent—of the entire number of classes meeting during the week, 3,213.

That is, assuming an average cost per meeting of class, 20.6 per cent of the cost of instruction for the week was incurred for the maintenance of classes having less than five students each. Or, to put it another way, of every dollar expended for instruction, 20.6 cents was expended for classes of one to four students each.

The table accompanying this discussion shows for each institution the number of meetings of classes having specified numbers of students and reveals the wide institutional variations, not indicated in the summary just quoted. The facts with relation to the cost of each of these groups of classes are graphically represented in the figure on the opposite page.

Among the recommendations in the report which will probably be of greatest interest to students of State education the following may be noted:

The commission recommends substantially the same differentiation of the school of education at the university and the department of education at the agricultural college as was recommended by the bureau's committee in Washington.

It counsels the assignment as major lines to the university of music, all branches of engineering to be given, except agricultural and industrial engineering, of advanced training in the liberal arts and pure sciences, and of professional work in law and medicine.

It recommends that agriculture, professional and technical training in home economics, and pharmacy be considered major lines at the agricultural college.

It declares that the work of the normal schools should for the present be confined to the preparation of elementary teachers. Recommendations for the elevation of the standards of academic and professional training of teachers similar to those proposed in the Washington report are made. The establishment of a normal school in the southwest quarter of the State is also urged.

The commission expresses the opinion that the school of science at Wahpeton should for the present be a school of science, agriculture, and mechanic arts of secondary grade. The school of forestry at Bottineau should be maintained as a special secondary school of agriculture, and the work in forestry should be transferred to the agricultural college.

On August 1, 1916, the State board of regents appointed Dr. Craighead commissioner of education.

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EDUCATIONAL AND FINANCIAL STATISTICS IN PRESIDENTS' REPORTS AND REPORTS OF SPECIAL COMMITTEES.

Allusion has been made to the growing tendency among progressive colleges and universities to survey themselves, to gather as careful a statistical record of their vital operations as possible, and

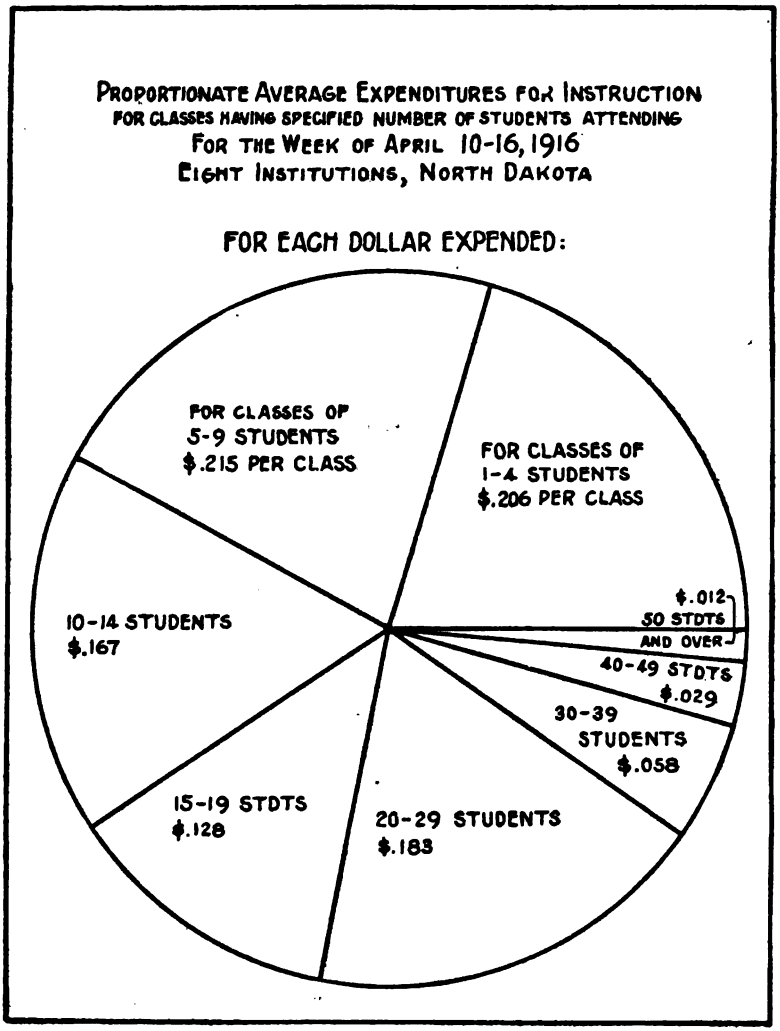
PROPORTIONATE AVERAGE EXPENDITURES FOR INSTRUCTION
FOR CLASSES HAVING SPECIFIED NUMBER OF STUDENTS ATTENDING
FOR THE WEEK OF APRIL 10-16, 1916
EIGHT INSTITUTIONS, NORTH DAKOTA
FOR EACH DOLLAR EXPENDED:
FOR CLASSES OF 5-9 STUDENTS $.215 PER CLASS
FOR CLASSES OF 1-4 STUDENTS $.206 PER CLASS
10-14 STUDENTS $.167
$.012 50 STDTS AND OVER
40-49 STDTS $.029
30-39 STUDENTS $.058
15-19 STDTS $.128
20-29 STUDENTS $.183

FIG. 2.—Proportionate average expenditure for various groups of classes of North Dakota institutions, as shown in the North Dakota survey report. (Bulletin of the Bureau of Education, 1916, No. 27.)

to make use of these facts in deciding upon new policies. There has also been a gratifying disposition to make such facts public. It might be well in passing to note that nothing a college can do serves better to strengthen the public confidence in the integrity and efficiency of its management.

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REPORT OF THE COMMITTEE ON COSTS OF THE COLLEGE OF THE CITY OF NEW YORK.

One of the most exhaustive and valuable studies of the type just referred to is the report of the committee on costs of the College of the City of New York. This committee was appointed from the faculty of the institution in October, 1914, in response to a resolution of the board of trustees requesting a report showing comparisons of the cost per student, the salaries per grade, and the hours of instruction of the teaching staff in the College of the City of New York and in similar institutions of standing in the country. The committee, reporting in the spring of 1915, calls attention to several facts and situations worth recapitulating here.

In the first place it points out the difficulty of ascertaining the cost per student. It says:

> A comparison of costs requires detailed information concerning all of the factors which enter into the calculation of the figures compared. This information is available in only a very few exceptional instances. Colleges and universities in general have not adopted any system of cost accounting which enables them to state the cost per student. Even in the few cases in which any effort has been made to determine the cost the meaning of the result has not been clearly defined. For cost is the result of interest charges and of teaching, of operating, and of administrative expenses. Moreover, one must know the kind of work for which the cost is given. College curricula differ within wide limits, both as to courses pursued and as to the weekly attendance required for their completion. Until there is a standardized college degree the cost at one place may not be compared with the cost elsewhere, unless both the quantity and quality of the work accomplished are known.

A very complete analysis of the cost at the College of the City of New York follows, showing the expense in each of the principal divisions of the college for teaching, for operation, and for administration, and the variations in these factors in the cases of students taking different kinds of courses. These data are still further refined to show the expense per student hour in various subjects and in prescribed or elective work. Coming to a comparison of costs of the College of the City of New York and other institutions, the committee finds itself almost wholly without trustworthy information and unable through correspondence to secure any. (It, perhaps, is worth emphasizing again in this connection what has already several times been noted by university officials, namely, that among the most needed investigations in the whole field of higher educational administration is the exploration of this *terra incognita* of cost accounting.)

It is forced in the end to compile from a bulletin, published by the Carnegie Foundation for the Advancement of Teaching in 1908, on "The financial status of the professor in America and in Ger-

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many," an admittedly unsatisfactory table, showing for a group of institutions similar in organization to the City College, the appropriations for salaries, the number of students, and the quotient obtained by dividing the former by the latter. This it labels "Salary teaching expense per student." As salaries increased on the average 7½ per cent between 1908 and 1913, the committee includes another column in its table which estimates the salary expense per student in the same institutions in 1913 by increasing the salary expense figures of 1908 7½ per cent. While this table lays no claim to strict accuracy, the figures are probably sufficiently indicative of actual costs in these institutions to be illuminating. It is interesting to observe that the salary teaching expense per student in the 42 institutions considered ranged in 1908 from $63.60 paid by the North Dakota Agricultural College to $440.25 paid by Clark University. These figures can not, of course, be compared at all with the figures of the cost per student published in the reports of the Iowa and Washington surveys. Nevertheless the committee's investigation of the College of the City of New York makes possible a comparison of costs per student at that institution and at the institutions recently studied by the Bureau of Education.

The toal cost per college student at the College of the City of New York, including expense for teaching, for operation, and for administration, was, depending on the course in which the student was registered, $248.18, $325.65, or $265.80. (The average salary teaching expense per student at the City College was $185.05.)

Of the many interesting tables in this report, but two more can be mentioned here. The first of these shows the weekly periods of instruction given in 1908 by college teachers in typical subjects at the institutions accepted by the Carnegie Foundation, at State universities, and at the College of the City of New York. The average number of periods of instruction or "teaching hours" weekly in all "accepted" institutions was 11.7; in State universities, 13.8; and at the College of the City of New York, 15.7. Later scattering returns indicate a tendency on the part of the stronger institutions to reduce still further the number of periods of instruction carried by the faculty. The other table (table 1 of the report) presents the summary of the institutional budget for the year 1915. In view of its simplicity and its admirable arrangement (also for the purpose of comparison with the scheme for recording expenses used in the Washington and Iowa surveys), the table is printed below.

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College of City of New York—Summary of budget for 1915.

Teaching, $509,317 (75.1 per cent).	Salaries, instructional, day (for teaching)	$461,970.00
	Salaries, instructional, evening, and extension	14,904.00
	Salaries, regular employees (assistants)	8,726.00
	Educational equipment	15,512.00
	Educational supplies	5,205.00
	Educational repairs (to apparatus)	3,000.00
		509,317.00
Operation and maintenance, $94,278 (13.9 per cent).	Janitorial service	18,905.00
	Operation of plant and equipment	26,899.00
	Repairs to plant and equipment	23,592.00
	Supplies for plant and equipment	23,376.00
	Equipment (new)	1,113.00
	Fire alarm and general plant service	393.00
		94,278.00
Administration, $74,491 (11 per cent).	Salary, acting president	7,500.00
	Salaries, instructional, day (for administration)	28,980.00
	Salaries, instructional, evening, and extension (stated)	1,068.00
	Salaries, regular employees (T. H. H. and Lib.)	7,150.00
	Salaries, regular employees, president's office	8,567.00
	Salaries, regular employees, curator's office	11,300.00
	Equipment, supplies, service, contingencies	9,906.00
		74,491.00
Total		678,086.00
Budget for 1914		680,963.62

THE REPORT OF THE PRESIDENT OF SMITH COLLEGE.

The annual report of the president of Smith College for the year 1914–15 contains careful statistical analyses of the conditions of work of both students and teachers, of the sources from which the student body comes, of the previous preparation of students, of the rate and causes of mortality, and of several other matters of less general concern. Three tables in particular will prove of special interest to students of college administration. The first of these summarizes the work of the 22 departments of the college. It shows by classes (freshman, sophomore, etc.) the number of students engaged in the study of each subject during both semesters and the number of student hours[1] given by each department. For example, the department of art (the first on the list) registered in the first semester 162 freshmen, who received 207 student hours of instruction. It registered 62 sophomores, giving them 96 student hours of instruction. Its total registration for the first semester from all classes was 557, and the total number of student hours it offered was 1,076. As to the amount of instruction given, measured by student hours, the department ranked ninth among the 22 departments. This table is rendered

[1] The fact should not be overlooked that the "student hour" used in President Burton's report and mentioned in the account just given of the report of the committee of the College of the City of New York is a different unit from the "student clock hour." The latter is defined on p. 20. The "student hour" count would be the same for courses made up wholly of recitations or lectures, but different for laboratory courses. For example, such a course in chemistry as is mentioned above (p. 20) would count but four "student hours" at most.

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still more valuable by the addition of another, which shows the size and number of class sections and the number of hours a week that each section is given. The totals in this table will doubtless prove especially illuminating to college executives. It appears, for instance, that there were in nonlaboratory courses 57 classes, or 19 per cent of the total number of classes, enrolling less than 10 students each; 79, or 26.6 per cent of the total number, enrolling from 10 to 20 students each; 70, or 23.6 per cent of the total number, enrolling from 20 to 30 students each. Four per cent of the total number of classes enrolled from 50 to 75 students. As a distress signal, to call the attention of administrative officers both to financial leaks caused by unduly expensive organization and to possible pedagogical weaknesses, this item of statistical study can not be too highly commended. It may be of interest to record in passing that the bureau's investigations showed 39 per cent of the total number of classes (laboratory and nonlaboratory combined) at the State University of Iowa, 27.5 per cent at the Iowa State College of Agriculture and Mechanic Arts to have enrolled less than 10 students each.

Studies of college enrollment made by the General Education Board[1] have established certain truths with regard to the size of what might be called the "magnetic field" of the college. Briefly stated, they are that a college commonly draws the major portion of its students from within a radius of 50 miles, very few from outside a radius of 100 miles, and few from outside the State in which it is located. The percentages fluctuate, of course, as the result of peculiar local influences. The area from which several of the older institutions in the East and a few of the women's colleges draw their student bodies is vastly more extended. The importance of knowing the actual extent and the boundaries of an institution's field is apparent without argument, especially in these days of diverse secondary curricula.

A third valuable table of the Smith College report is one showing the geographical distribution of the student body by States and by foreign countries. It appears from this table that but 40 per cent of the present student body are from the New England States, 38.5 per cent come from the Central States, and 21 per cent from the Western States. Moreover, these percentages have remained substantially constant for the last five years. Few institutions exhibit such a far-flung battle line. The observer whose sources of information concerning the administration of this college are confined to its printed documents is prompted to discover a causal relationship between these facts and certain recent changes in the institution's educational policies (see especially p. 37).

[1] See General Education Board Report, 1902–1914, p. 119 et seq.

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REPORT OF THE PRESIDENT, DEANS, AND OTHER OFFICERS OF MIAMI UNIVERSITY.

A previous report (see Report of Commissioner of Education, 1914, pp. 174 and 175) called attention to several intensive studies of important aspects of educational and financial administration made at Miami University. The report of the president, deans, and other officers of this institution for the year 1915–16 is replete with graphical and tabular records of various phases of institutional activity which thus far have been seldom analyzed. In fact, the statistical portion of this report presents what is practically a survey of the scholastic and fiscal operations of the university conducted by its own officers. A description of several of the recording devices forms an appropriate part of this discussion.

The scope of instruction in the college of liberal arts is set forth in a table which shows for each department the following facts: The number of full-time instructors, the credit hours given by the department per semester, the average number of hours (i. e., hours of teaching weekly) per instructor, the average number of students in the department, the average number of students per instructor, the number of credit hours in each department taught in classes of more than 20, the number of credit hours taught in classes of less than 10, the per cent of hours taught in classes of more than 20, and the per cent of hours taught in classes of less than 10. A portion of the table is reprinted here.

Miami University—Instructors and hours of instruction.

Departments.	Number full-time instructors.	Credit hours per semester.	Average hours per instructor.	Average number students in department.	Average number students per instructor.	Number credit hours taught in classes of more than 20.	Number credit hours taught in classes of less than 10.	Per cent of hours taught in classes of more than 20.	Per cent of hours taught in classes of less than 10.
Language and literature:									
English	3.75	47.5	12.66	369	98	36	3.5	75	7
Public speaking	1.15	14	12.17	105	91	2	7.5	14	54
Latin	1.25	18	14.40	44	35	.....	7.0	.....	39
Greek	1.00	17	17.00	68	68	7	7.0	41	41
Romance language	2.60	38	14.60	207	80	35	.....	92	.....
German	2.00	28	14.00	142	71	15	2.5	54	8
Total	11.90	162.5	13.80	935	78	95	27.5	58	17

It will be apparent that this table reveals at a glance several matters concerning which it is of the utmost importance that the administrative officers of the institution be fully informed. For instance, it shows the gross burden borne by the teaching force of each department (the department is here the unit of administration) and the average distribution of it, whether any department is under or

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overmanned, and the extent of departmental contacts with the student body. The officers of Miami University have set 20 as the ideal size of the college class. This table shows also, therefore, the degree to which class enrollments approximate this ideal. Comment on the table brings out certain other interesting facts. It appears that in one year the growth in enrollment has resulted in nearly doubling the percentage of the hours of instruction given in classes numbering more than 20. Last year but 33 per cent of the total hours of instruction was given in classes of more than 20. This year the percentage is 62. On the other hand the administration has succeeded in reducing in the same period the proportion of instruction given in classes numbering less than 10. Last year 25 per cent of the total hours of instruction was given in classes of this size; this year but 15 per cent.

This table is reinforced by several others in other parts of the report. Chief among these is one entitled "Burden of teaching," which shows the "student hours" carried by each member of the staff for the academic years 1913–14 and 1914–15, and the "student clock hours" carried by each in 1915–16. (The change in the unit of measurement was made this year in the belief that the student clock hour is a more accurate index of the pressure on each instructor. (See pp. 20–21.)

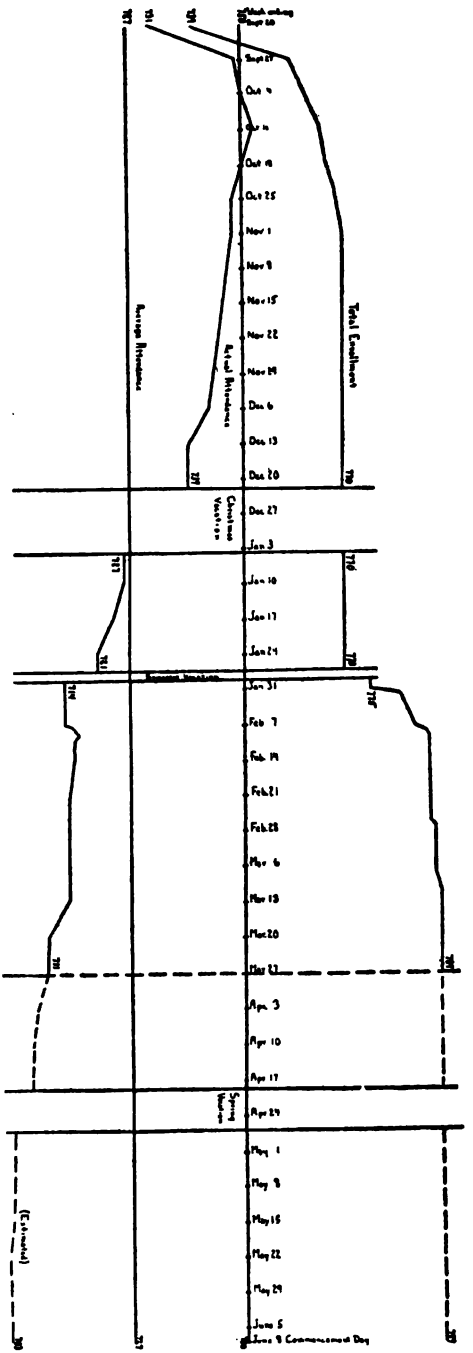

FIG. 3.—Chart of enrollment and attendance, Miami University, 1915–16.

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The heading to the table posits 300 student clock hours per week as the ideal load (compare review of Iowa survey report, p. 21), and states that the load at Drexel Institute, the only other institution known to have used the same unit in estimating the burden carried by the faculty, was found to be 320 student clock hours. Some of the Miami institutional averages appear in the following summary:

Total load, first semester, 1913–14, 5,364 student credit hours; average, 214.
Total load, first semester, 1914–15, 6,236 student credit hours; average, 234.
Total load, first semester, 1915–16, 7,323 student clock hours; average, 251.

The use of the "average attendance" instead of the catalogue enrollment as the divisor in the determination of per capita cost was described in connection with the discussion of the report of the Iowa survey (see p. 18). An illuminating graphical representation of the discrepancy between total enrollment and actual attendance, indicating the justice of taking the "average attendance" as the true measure in estimating institutional needs, is furnished in a graphic chart (see p. 35).

COLLEGE ENTRANCE REQUIREMENTS.

For many reasons the current status of college entrance requirements is of very great significance. The college of arts and sciences, the original germ from which American higher education sprung, is still the nucleus of the whole system. The growth of professional schools and the development of new technical and semitechnical curricula have not displaced it in the popular interest or diverted official attention from its peculiar problems. There continue to radiate from the college more impulses affecting higher education in general than from any other department. Hence changes in entrance requirements inaugurated by any large institution or adopted over any considerable geographical area are likely to be important. They may indicate the development of new purposes and new standards which eventually will have influence on all that is included in the university. Moreover, entrance requirements affect the point of contact between the college and the public-school system. A change of procedure at this point may register an alteration of the barometric pressure of the whole scheme of secondary and higher education.

No radical new tendencies have manifested themselves in the year under review. There has, however, been an interesting extension of certain movements already described in previous reports.

COMPREHENSIVE EXAMINATIONS.

Undoubtedly the method of admission represented by the Harvard new plan and the Yale new or alternative plan (see commissioner's report for 1915, p. 148), including as the determining feature the

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"comprehensive examination," is the most original and important contribution to educational practice as affecting the relations of secondary schools and colleges since the adoption by middle western institutions of the policy of admission by certificate.[1] The method has evidently commended itself to a large number of colleges of the North Atlantic section. The action of the College Entrance Examination Board[2] in voting to prepare comprehensive examination papers for the use of such colleges in its membership as admit on that basis constituted an unreserved indorsement of the plan by the organization which is probably at once the most influential and the most conservative of all those that deal with the problem of the articulation of college and secondary school. In view of this indorsement it is not surprising that several of the strongest institutions of the Northeast have adopted or propose to adopt the new method, with unessential modifications.

Prophecy is generally dangerous, but the prediction may in this case be ventured that this plan of determining fitness for college work is likely to have a still wider vogue in the immediate future. Strong dissatisfaction both with the old-fashioned examination system and with the certificate method of admission prevails among conscientious college officers throughout the country. The former is believed to offer no true test of power. On the other hand it puts a premium on memorizing facility and the ability to absorb information for temporary use under the cramming process. The latter is hard to administer effectively. By making the equipment and standards of the school from which the candidate comes the criterion for judging his eligibility for admission, it often fails to discriminate between good and bad preparation of the individual. It encourages also the purely quantitative measurement of scholastic attainments. The new plan is thought to combine the excellencies and to avoid the defects of both the current methods of admission. It preserves the flexibility of the certificate system while imposing the individual test for which the entrance examination was primarily designed. Furthermore it emphasizes especially the quality of the candidate's preparation.

Haverford College has reported to the bureau the adoption within the past year of a plan of admission under which the candidate submits a certified school record and passes comprehensive examinations in a few subjects.

[1] The essential feature of the plan is that it combines the certificate and examination methods of admission. The candidate presents a certificate from the secondary school testifying to the quantity of the work covered. The college takes a sample of the quality by examining him in four subjects. The examination is designed to test the candidate's general knowledge of a given subject and his intellectual power, not to ascertain whether he has mastered a prescribed book or course.

[2] Referred to in the last report of the commissioner, p. 149.

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The four large certificating colleges for women in the Northeast, Mount Holyoke, Smith, Vassar, and Wellesley, have announced that they will together adopt a similar plan to replace the certificate system in September, 1919. Any candidate may enter under this plan prior to 1919 by passing the comprehensive examinations now offered by the College Entrance Examination Board and furnishing the required evidence from the secondary school attended. In minor details the plan proposed by these four institutions differs from that already enforced at Harvard, Yale, and Princeton. The evidence submitted by the secondary school must include an estimate of the candidate's scholarly interests, special ability, and character. Considerable latitude of choice is allowed the candidate in the selection of the comprehensive examinations to be taken. One examination may be in either English or history, one in a foreign language to be selected by the applicant, one in mathematics or chemistry or physics, and the fourth in some other subject offered for admission, the committee on admission concurring, however, in the candidate's choice. It is proposed that the persons who judge these examinations shall not resort to numerical or alphabetical grading, but shall indicate by verbal comments the extent to which the papers reveal the candidate's fitness to undertake college work. The new plan is not, at the outset at least, to affect the content of the entrance requirements imposed by each of the four colleges. The special prescriptions of each are to remain in full force and only those candidates will be admitted to the comprehensive examinations who satisfy the committee on admission of the college to which entrance is sought that these prescriptions have been met.

ENTRANCE REQUIREMENTS IN NEW HAMPSHIRE.

In the commissioner's report for 1914, page 163 and following, an account was given of the objections raised by certain of the New England State departments of education to the alleged domination of high-school education in New England by the New England College Entrance Certificate Board. It was there pointed out that the entrance requirements of the constituent colleges of the board were regarded by several of the chief State school officers as too conservative, and that through the immense influence and prestige of the board this conservatism was carried over to the secondary schools oftentimes, these officers believed, to the disadvantage of their respective communities.[1]

[1] It is interesting to note in this connection that at a conference held during the Christmas recess of 1915 of representatives of the certificating boards of the country—the New England board, the North Central Association, the associations of the Middle States and of the South—the conclusion was reached that in New England only is there any certificate board that has done really effective work in making a certificate practically equal to an examination. In other parts of the country the list of approved schools is merely an honor list, which the colleges follow or not, as they please. No special certificate grade is required of pupils, but a mere passing grade entitles them to a certificate.

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In order that the high schools of New Hampshire at least might be free to adapt their curricula to practical local needs without fear of being outlawed, the State superintendent advocated the establishment of a State university, which should adapt itself to the work done by the high schools and should raise no "artificial and arbitrary obstacles in the pathway of education."

An announcement of changes in the basis of admission to New Hampshire College appears to indicate that this institution is preparing to establish a cooperative relationship with the State department of public instruction similar to that which exists between the State universities and the State education departments of certain other States. The college has voted to admit any graduate from a high school or academy approved by the State department of public instruction on the basis of his graduation, without a special certificate formerly required, provided the division entrance requirements of the college have been met. In the agricultural and arts and science divisions these division requirements comprise seven prescribed and eight elective units; in the engineering division eight units are prescribed and seven elective. The latitude thus granted to the schools in the determination of the content of the secondary curriculum for those who plan to attend the State college is considerable. A bulletin recently issued by the college states that the institution wishes to stand in much the same relation to the high schools and academies which the latter occupy with reference to the grammar schools. The bulletin also quotes a letter from State Superintendent Morrison, which comments to this effect on another aspect of the new plan:

> It means that the high school can no longer have, as it has had in some cases in the past, one standard for graduation and another standard for certification to college. It means that the high school * * * must do sincere and frank work with all who are within its doors and graduate nobody about whose education it is at all in doubt.

New Hampshire possesses but two institutions recognized as of college grade by the Bureau of Education. Recent modifications of the basis for admission to Dartmouth College are therefore of special interest. Dartmouth, which was one of the original members of the New England College Entrance Certificate Board, has now retired from that body and has inaugurated a new method of selecting the schools whose pupils shall have the privilege of admission by certificate. The college announces that it desires to promote more personal and less perfunctory relations with the schools which prepare candidates for admission. These it proposes to establish by means of a personal visitation by the executive secretary of the committee on admissions or some other member of the faculty. In granting the

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certificate privilege hereafter the committee on admission will consider—

(1) The report of the faculty visitor.
(2) The record of graduates of the school who have entered Dartmouth, if any.
(3) The standing of the school in the rating of the State department of education and other certificating bodies.
(4) The information contained in the application blank submitted by the principal of the school.

In deciding upon any application attention will be paid to—

(1) The quality of instruction as influenced by training of teachers, pupils per teacher, and classes per teacher.
(2) The equipment of the school, including library and laboratory facilities.
(3) The course of study indicated by length of school year, length of actual teaching period, number of recitations a week in each subject, provision for concentration on certain subjects, and opportunity for the study of electives.

The college holds a different opinion from that expressed by the officers of New Hampshire College, however, with respect to the parity of high-school graduation and the certificating standard. It urges principals signing certificates to make sure of the ability of the pupil to gain profit from a college course such as Dartmouth offers. The college sets no definite mark which must be gained before a pupil shall be certified; it views with apprehension, however, the assurance of a certificate to a pupil whose standing was below 85; in uncertain cases entrance examinations may be taken, and the responsibility for the pupil's fitness placed upon the college.

INCREASES IN THE AMOUNT OF ENTRANCE CREDITS DEMANDED.

The reaction against merely quantitative estimates of college preparation, which is represented by the spread of the new plan of admission in the Northeast, is by no means universal. In other sections emphasis continues to be placed chiefly on the amount of ground covered. Especially is this the case in those parts of the country where lax standards of admission have prevailed in the past. In these quarters it is undoubtedly wise for institutions to make sure first that candidates have undergone at least a reasonable minimum of secondary training. Closer discriminations as to the quality of the training may be set up by later enactments.

The development of public (and to some extent even of private) secondary schools has been seriously hampered in certain States by an oversupply of colleges, the majority of which depend in large measure on students' fees for support. These States have witnessed an annual scramble for recruits which has ignored the interest of the public in the establishment of sound secondary schools and has too often made a mockery of college standards. More than one

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State school officer has complained that it is impossible to maintain a four-year high school within 20 miles of some of the more aggressive of these needy colleges. High-school students of the third and even of the second years are lured away by the promise of collegiate rating. The resulting burden of conditions has also been found to vanish during the college course without undue effort on the part of the students thus ostensibly handicapped. So a vicious circle has been established which has prevented both the development of the public-school system and the realization of true collegiate standards.

South Carolina has been one of the States which has suffered from these conditions. The State Education Department lists 20 colleges for whites, 14 of which are recognized by the Bureau of Education (the total white population of the State is less than three-quarters of a million). In 1914–15 the department recorded a total high-school enrollment of 10,481 and a total of but 673 pupils above the third high-school year. The difficulty of building up four-year high schools (but 41 schools are listed by the department as having fourth-year students) has been greatly increased by the readiness of some of the colleges to accept pupils with but two or three years of high-school training. Concerted steps toward improving the situation were taken in April, 1915, when the South Carolina Association of Colleges passed the following resolutions designed to serve as a minimum standard for entrance:

1. That for the session of 1915–16 the colleges shall admit by certificate only those students who have completed not less than a three-year high-school course, or its equivalent.

2. That examinations for entrance shall be based in 1915–16 on not less than a three-year high-school course.

3. That for the session of 1916–17 no student shall be accepted on certificate who offers less than 12 units as defined by the high-school inspector.

4. That no advanced standing be given to a high-school graduate, except on examination.

5. The committee recommends that it shall be the established policy of the association to discourage students from coming from any community that maintains a four-year high-school course until they shall have completed the fourth year.

A number of other institutions in various parts of the country have reported to the Bureau of Education increases in the quantitative requirements for admission. Thus, for example, H. Sophie Newcomb Memorial College, Maryland Agricultural College, Oregon Agricultural College, and Washington and Lee University have raised their entrance requirements to 15 units. Baldwin-Wallace College has increased its requirements for conditioned entrance from 12 to 13 units, and the requirements for full standing from 14 to 15 units. The University of Oklahoma, which required 15 units for full standing, has raised its requirements for conditioned en-

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trance from 12 to 14 units. The College of Industrial Arts at Denton, Tex., has raised its regular requirements to 14 units.

A STUDY OF PENSIONS AND INSURANCE FOR COLLEGE TEACHERS.

Special reports of the Carnegie Foundation for the Advancement of Teaching generally command the thoughtful attention of those who have to do with higher education in the United States. Bulletin No. 9, 1916, of the foundation, "A comprehensive plan of insurance and annuities for college teachers," by Henry S. Pritchett, president of the Carnegie Foundation, will probably be viewed as a noteworthy contribution to the literature of a subject in which as yet few scientific studies have been made. The conclusions reached on a matter of vital interest to all college teachers are likely to be regarded both by boards of trustees and by college faculties as of the highest importance. The preliminary statement points out that the report describes a plan of relief which it is believed will protect the teacher against the life hazards incident to his calling, which is secure and permanent, which is within the reach of the teacher and of his college, and which takes into account not only the interest of the teacher but those of his employer and also those of the general public.

The paragraphs quoted below from the preliminary statement indicate the general scope of the report.

Two main risks confront the man entering the career of a teacher, affecting the welfare of himself and those dependent on him—first, the risk of premature death during his productive life; second, the risk of dependence when his income-earning power declines. The first can be met only by some form of insurance, the second by some form of annuity. The solution here presented consists of a combination of insurance at cost with an annuity available at a definite age. The scheme is based upon the conception that the man who is assured of a pension at a definite age, let us say 65, is in a different position with respect to insurance from the man who has no such pension secured to him. He desires to be protected in a definite risk over a given period just as he might insure a house against the risk of fire for a given term. His need is therefore met by term insurance, which affords the requisite protection to his family during the productive period of life—during which, also, insurance is cheapest. The report points out in detail the saving which would be effected as compared with insurance furnished in any other way, and shows that a teacher of modest salary can afford to carry insurance of this sort, of adequate amount, without financial burden. For example, a man at 30 can carry term insurance of $5,000 to end at 65, at a cost of about $5 a month. Teachers who now carry insurance generally spend far more than this on small and expensive policies.

The report gives in detail similar information regarding the kinds of annuities which can be purchased by a reasonable sum paid in year by year and accumulating over a term of years. It emphasizes the fact that when an ideal system is to be considered, the problem must be approached from the point of

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view of the teacher entering the service rather than from the point of view of the teacher grown old and ready to leave it. Nearly half the teachers who enter at 30 will die before the pensionable age.

Assuming such a system of insurance and old-age pensions as meeting the wants of the teacher, the next question is, Who is to pay for it?

With this matter the report deals in detail. It seeks to make clear that the financial responsibility for the protection of a man's family and for his own security in old age rests upon himself. To lift this responsibility wholly from the shoulders of the teaching profession is neither wise nor is it desired by college teachers. They prefer to pay their fair proportion of such an obligation. The replies already made to this plan make this clear.

The teacher, in an economic sense, is an employee of a corporation; and all corporations, whether they be governments, business firms, or universities, have a direct pecuniary interest in maintaining a pension system which makes it possible for men to retire in decent comfort as their productive powers diminish through age. This economic reason is strengthened by the responsibility which the social conscience of mankind lays upon all employers to take some part in advancing the well-being and happiness of those whom they employ.

Although concerned primarily with the establishment of a pension system for college teachers, the report discusses the pensioning of public employees in general and records the experience of several countries with various forms of old-age relief. Two plans have been followed, the reserve plan and the cash-disbursement plan. Under the former, "the necessary reserve for each beneficiary is set aside year by year. This, with accumulated interest, will provide the pension when it may become due." Under the second, "Pensions are paid out of current funds, such as are provided by Government appropriations or from an endowment or from the general income of an institution." Attractive as the free pension system has appeared to various groups of workers who have sought it, it has, the report declares, proved itself insecure and expensive. "Pension systems based upon the cash-disbursement plan and offering a free pension have in the great majority of cases broken down through their great cost unless upheld by the resources of a government. Even in the case of governmental pensions, the cost has mounted to such proportions as to endanger the permanency of the system." Examples of the enormous ultimate cost of such a system are numerous. In Berlin, in 1914, the pension roll of the civil service, excluding the police, amounted to 36.92 per cent of the pay of the active list. In 1915 the percentage ratio of the pension roll to the pay roll of the London Metropolitan police was 29.3 (in 1854 it was but 8.5). In Austria, in spite of the fact that civil-service employees contribute to the maintenance of the pension system, the pension load has become a serious burden. In 1912 the pension cost of the civil list was 33 per cent of the cost of the pay of the active list.

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Moreover, the report states that in addition to its insecurity the noncontributory pension paid on the cash-disbursement plan is in the end the dearest to the beneficiary. It concludes that:

> A pension system on the reserve plan, sustained by the joint contributions of the employer and employee, is not only the fairest and the most equitable form of pension system, but it is the only one in which the cost can be ascertained in advance, in which the question of pension is separated from the question of pay, and it is the only form of pension which can be permanently secure.

These conclusions have been reached by the officers of the Carnegie Foundation after 10 years of experience with a different system and after constant study of an exceedingly complicated subject. The foundation has a large fund to administer for the payment of pensions to college teachers. The fund is to be used for no other purpose. The directors of the foundation decided in the beginning to spend the income of the fund for the payment of noncontributory pensions in a limited number of colleges and universities,[1] reserving the privilege of modifying the system from time to time as experience might dictate. The rapidly increasing load upon the foundation's income (due in part to the fact that the mortality experience of the foundation during the 10 years of its existence has been far below the most conservative tables and the cost correspondingly greater) points to the likelihood of the still further limitation of the field of its contributions in the future, unless some other plan of administration is adopted. President Pritchett believes, moreover, that the foundation will have fallen short of its original purpose if pensions are provided only in a relatively small group of institutions. The bulletin, therefore, not only outlines what the author conceives to be a desirable pension system for the colleges of the United States and Canada, but shows how the foundation may help to make possible the general adoption of such a system.

Two principal difficulties attend the establishment of a combined annuity and insurance scheme maintained on the reserve plan by the joint contributions of the teachers and the employing colleges, which is the kind of pension system the report advocates. The first of these obstacles is known under the term "accrued liabilities." There are many men past middle life, too old to participate in any relief plan, who must shortly be pensioned if a pension system is put into effect. The load of pensions already accumulated upon the lives of these men constitutes the "accrued liabilities" of the college. It has been a burden heavy enough to prevent many colleges from establishing a pension system and it can not be avoided. In effect, the foundation has been carrying the accrued liabilities of the colleges on its accepted list. "It seems to many who have given thought to these questions

[1] Seventy-three colleges and universities in the United States and Canada are now associated with the foundation.

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that the time has now come to determine in what way the foundation may not only carry out its obligations to the colleges associated with it, but also seek to put into operation a permanent system for the protection of teachers and their dependents, applicable to all of the higher institutions of learning throughout the United States, Canada, and Newfoundland."

The other obstacle to the establishment of such a system is the impossibility of securing cheap insurance during the productive life of the worker through the ordinary commercial companies. The foundation might undertake this service, through the medium of a subagency. An arrangement might then be made whereby the Carnegie Foundation would furnish to the teacher insurance at cost, and "the college and teacher cooperate in the support of a system of annuities available at the minimum age of 65, when insurance ceases." What is believed to be the great advantage to the teacher and to the college of such an arrangement is illustrated in the following paragraphs:

Let us follow a case typical of the experience of the average teacher and of the average college. Starting a teacher as instructor at age 30, let us assume that a minimum insurance of $5,000 and a minimum annuity of $1,000 a year is decided upon. The annual cost of the two would amount to $188.16, or about $15.68 a month. Five years later the teacher finds himself in the possession of a salary $500 larger than he had formerly, and he decides to devote $100 a year to an increase in his protection. In view of the rapidity with which the cost of the annuity grows with years, he decides to put this into the form of an annuity, and thus obtains an increase of some $600 in the annuity, which is thus brought up to $1,600. Five years later, at the age of 40, finding himself again in possession of a still larger salary, he decides to take out $5,000 more of insurance to end at age 65, which would cost him about $75.

Should this teacher live to 65, he would have available for his use a retiring allowance of $1,600. Should he continue in service three years longer but make no more payments, his retiring allowance would amount to $1,987. His wife, in case she survived him, would share in this retiring allowance. Should this teacher die between the ages of 40 and 65, he would leave to his family an insurance of $10,000 and his accumulated savings, which would amount in cash to the following sums at the respective ages:

Age at death:	Cash value of accumulated savings.
40	$2,176.85
45	3,999.52
50	6,270.87
55	9,101.39
60	12,628.75
65	17,024.32

In comparison with the protection which this teacher and his family would enjoy, for a maximum cost of a dollar a day, the average college teacher and his family are practically unprotected. Yet his annual payments are only one and a half times those now made by teachers for life insurance alone. With the participation of his college this cost would be but little more than that now spent for inadequate insurance.

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The report was originally presented as a confidential report to the trustees of the foundation. The board has not yet acted upon the proposals except to pass resolutions ordering the circulation of the report among the associated colleges and announcing "that whatever plan is finally adopted will be devised with scrupulous regard to the privileges and expectations which have been created under existing rules."

TRAINING FOR PUBLIC SERVICE.

The efforts of university administrators during the past two decades have been directed as never before toward the establishment of contacts between the university and the community which it serves. The movement, which received its first impetus from the early enterprises in the field of university extension, has ramified and spread until it includes cooperative activities almost too numerous to record. Coincidentally, the intramural work of the university itself has undergone a "sea-change." The division and subdivision of courses, the addition of specialized curricula designed to train persons for new technical and professional pursuits, all bear witness to the ready response of the modern university to the vocational demands of its constituency. To the observer who views American higher education as a whole, this endeavor to make the university in the broadest sense an instrument for public service will doubtless appear the most conspicuous present tendency.

A manifestation of this tendency, pregnant with possibilities for the development of greater governmental efficiency, is reported in the recent projects for the establishment of courses for the training of public servants which have been inaugurated by institutions in a number of the larger cities and by several State universities in the Middle West and Southwest. These projects have been promoted and fostered: First, by the committee on practical training for public service of the American Political Science Association; then by a national conference on universities and public service held in New York in May, 1914, and latterly by the Society for the Promotion of Training for Public Service, an organization created to cooperate with universities and governmental agencies in the formulation of plans and the circulation of propaganda looking to this end. The relation of this movement to certain of the purposes of the Association of Urban Universities (mentioned in the report of the commissioner for the year 1915, p. 154) will be apparent.

The character and scope of the training contemplated are indicated by excerpts from the recommendations of two institutional committees reporting during the academic year just ended. It will be noted that cooperation not only with governmental agencies in the actual work of administration, but with other educational organiza-

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tions, is included in both plans. A special committee on training for public service, appointed by President Butler, of Columbia University, recommended in part as follows:

1. Two or three years of regular college training, including elementary government, economics, etc.

2. One year of special training embracing the following subjects: (*a*) Municipal government (specialized course); (*b*) administrative law; (*c*) public and municipal accounting; (*d*) office and works management; (*e*) public finance and budget making; (*f*) institutions of public welfare; (*g*) city planning and social surveys; (*h*) technique of investigation and inquiry; (*i*) statistics and reporting, including instruction in English and graphic methods of presentation.

3. One year of contact or field work and observation. This work should be done (under the direction of the standing committee on training for public service hereinafter described) in New York City departments or in cooperation with the Bureau of Municipal Research and Training School for Public Service in such a manner that each student may secure practical experience in—(*a*) budget making; (*b*) the investigation of several branches of public administration; (*c*) the preparation of reports and recommendation on the basis of ascertained results; (*d*) the practice of presenting oral statements of results in short form.

Among the recommendations for immediate action were:

6. That upon recommendation of the standing committee the extension division of the university, in cooperation with the several technical and professional schools of the university, shall offer special courses of instruction for persons already in the civil service of New York City who desire to increase their knowledge and efficiency and to prepare for promotions, and that these courses be offered at such times and places as may be convenient to civil servants.

7. That provision be made for cooperating with the Training School for Public Service in New York City on the following basis:

(*a*) Exchange of students. That Columbia University shall admit without charge to courses of instruction in the university students from the training school to such a number as the university committee on training for public service may deem an adequate return for the facilities offered to the students of Columbia University by the training school.

(*b*) Exchange of instructors. That professors in Columbia University may, by arrangement with the Training School for Public Service, offer courses of instruction at the training school and that such courses may, on approval by the appropriate authority, be counted as equivalent to courses offered at the university. That members of the staff of the training school may, on the recommendation of the faculty concerned and the trustees of the university, be authorized to offer courses of instruction in the university.

(*c*) Credit for field work. That the graduate faculties of Columbia University, or any one of them adopting this provision, shall, on recommendation of the dean and the above university committee on public service, grant credit for work done in the Training School for Public Service, provided that in no case shall the credit granted exceed the value of one minor and such additional credit toward the major as the professor in charge shall allow. Provided further that in every case such work in the training school shall be done under the general supervision of the professor of Columbia University in charge of the students' major subject and with the approval of the dean.

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A committee on municipal-service survey, appointed by President Mezes, of the College of the City of New York, recommended:

(1) That there be appointed at the college a director of public-service training. It shall be the duty of this officer to keep a record of all municipal positions which are open to college students, and the subjects and dates of approaching examinations. He shall also establish at the college in cooperation with the municipal civil-service commission an intelligence office or clearing house for civil-service positions, and he shall be prepared to advise students as to the courses and methods to be pursued in preparation for such positions. He shall confer with the civil-service commissioners and chief examiners as to the relation between college instruction and civil service as to examinations, standards, credit for field work, and eligibility. The director of public-service training shall also confer with the heads of city departments and bureaus with regard to their needs and the ability of the college to supply them.

(2) That a college standing committee on public-service training be appointed to cooperate and advise with the director. Such a committee should have among its membership representatives of the departments most concerned in the technical training of those who will enter public service.

(3) That the announcements of the several divisions of the college contain a statement of the scope and work of the committee on public-service training.

(4) That provision be made for cooperation of the college with such unofficial public agencies as the training school for public service and the Bureau of Municipal Research, especially with a view to the possibility of exchange of students, exchange of instructors, and exchange of credit.

(5) That the special courses to be recommended and their formal organization be immediately taken up by the director of public-service training with his committee and all other departments and agencies involved.

THE PROPOSAL FOR A STATE UNIVERSITY IN MASSACHUSETTS.

The administration of American education is less systematized than that of any other important country. In theory the provision and the control of education is the function of each of the State governments. While these Governments have, without exception, provided—either through the direct action of the State or by mandatory laws affecting smaller civil divisions—facilities for a certain amount of schooling, the forms of control and the powers reserved to the State's officers vary widely, as do also the concepts of the extent of the educational opportunities which the State is under obligation to furnish. It is a well-known fact that the older Commonwealths of the East have less generally provided higher education at State expense (except in agriculture and mechanic arts, for the partial maintenance of which Federal appropriations are also made) than the Western and Southern States.

The reasons for this divergence in the practice of the different sections of the country are as well known as the fact. Chief among them is the existence in the East of numerous strongly endowed colleges and universities founded by private philanthropy long before

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the emergence of the social ideal which demands that the State maintain agencies for every type of intellectual training required by any considerable group of citizens. The majority of these privately supported institutions have, however, adapted themselves to the changed conditions both of public education and of social philosophy. They have constantly sought, on the one hand, to establish closer adjustments with the public-school systems. On the other, they have come increasingly to regard themselves as to all intents and purposes public instruments, subject—within the limits of their respective charters—to such modifications of policy and aim as might be necessary to keep them in harmony with the current trend of public education. Nevertheless, they are of course organically cut off from the public schools; their governing boards are not directly and legally responsible to the general public; through the force of long-established traditions, which are peculiarly potent in academic communities, they are inclined toward conservatism.

These facts and tendencies have led certain persons in several of the Eastern States to urge the creation of State universities as the logical culmination of the State's educational enterprise, and as the only sure means of providing equal educational opportunities for all citizens. One of these proposals has already been alluded to. (See p. 39.) A second, perhaps of even greater interest, concerns the foundation of a State university in Massachusetts.

Without reference to the rank and reputation of the privately endowed institutions of Massachusetts, a mere statistical summary of their number, enrollments, and financial resources indicates that this State is singularly well equipped with facilities for higher training. In spite of this fact, however, the State board of education was instructed to prepare for submission to the legislature of 1915 a plan for the establishment of a State university. Under these instructions the board was allowed no discretion. It consequently submitted forms for two acts which might be made the basis of legislation. The first provided for an initial appropriation of $500,000 for the purpose of acquiring grounds and buildings and organizing a teaching institution. The second provided for the annual appropriation of a scholarship fund of $100,000 to be administered by the board and to be used in paying the tuition of worthy young people at existing institutions.

The board also suggested:

> that as an alternative to a State university established as an institution offering regular courses of instruction, the Commonwealth might create and maintain a university of Massachusetts as a nonteaching organization, which should consist of a board of trustees authorized to conduct university extension courses and correspondence courses, to administer a system of State scholarships, to

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promote the training of secondary school teachers and of school administrators and supervisors, to provide for organized cooperation between higher institutions of learning in Massachusetts on the one hand and the State and municipal departments on the other, and to secure proper articulation of high school and college by organizing and putting into effect plans whereby the above results may be secured through cooperation with existing colleges and universities.

Such a university should, at least at the outset, maintain no faculty. It should be provided with buildings and equipment necessary for the proper conduct of its administrative work. If circumstances warranted, it might in time be authorized to organize and maintain a permanent staff of lecturers for subjects or courses not otherwise available. It is believed that the institutions of higher education in Massachusetts would cooperate with such a university, and it has been stated that there would be readiness to support, without expense to the State, a certain number of extension courses.

The committee of the legislature to which the matter was referred reported that no legislation was necessary. The legislature, however, passed a very important measure which looks in the general direction of the board's proposals. This provided for the establishment of a department of university extension under the direction and control of the board of education and appropriated $25,000 for its maintenance during the year 1915.

The main provisions of the act are as follows:

SECTION 1. There is hereby established a department of university extension to be under the direction and control of the board of education. The head of said department shall be appointed by the board of education, with the approval of the governor and council, and his salary shall be fixed by the board with the approval of the governor and council. He may be removed at any time by the said board of education.

SEC. 2. The said department of university extension is hereby authorized to cooperate with existing institutions of learning in the establishment and conduct of university extension and correspondence courses; to supervise the administration of all extension and correspondence courses which are supported in whole or in part by State revenues; and also, where that is deemed advisable, to establish and conduct university extension and correspondence courses for the benefit of residents of Massachusetts: *Provided*, That nothing in this act shall be construed as giving to the said department or to the board of education the control or direction of extension and correspondence courses in agriculture or in subjects directly related thereto when these are administered under the direction of the Massachusetts Agricultural College. The said department, subject to the approval of the board of education, may employ such agents, lecturers, instructors, assistants and clerks, for whole or part time, as may be necessary for proper compliance with the provisions of this act. With the approval of the governor and council and of the board of education, it may rent suitable offices for the conduct of its work.

SEC. 3. The said department for the purposes of such university extension or correspondence courses, may, with the consent of the proper city or town officials or school committees, use the school buildings or other public buildings and grounds of any city or town within the Commonwealth, and may also use normal school buildings and grounds and, with the consent of the boards or commission in charge of the same, such other school buildings as are owned or controlled by the Commonwealth. City and town officials and committees are hereby

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authorized to allow the use of buildings and grounds under their charge by the department of university extension for the purposes of university extension or correspondence courses, subject to the rules and regulations which such officials or committees may establish: *Provided, however,* That such use shall not interfere or be inconsistent with the use of said buildings and grounds by the public schools of the city or town. The said department may also arrange for the use of such other buildings, grounds, and facilities as may prove to be necessary for the conduct of its work, and may expend in rent therefor such sums as may from time to time be necessary.

SEC. 4. The department of university extension is empowered to appoint a State advisory council and also local advisory councils on university extension and correspondence courses, the functions of which shall be defined by the rules and regulations of the board of education.

* * * * * * *

SEC. 6. The said department is authorized to grant to students completing courses of instruction provided for under this act suitable certificates as evidence of proficiency, in accordance with rules and regulations to be established by the board of education.

ACADEMIC FREEDOM.

The issues implicit in the question of academic freedom transcend in importance all others. They concern not only the extent of the legitimate powers of boards of trustees; they concern the integrity of universities and the integrity of the scholar's calling. They involve more remotely the right of any established interest, ecclesiastical, economic, or popular, by reason of its prejudices and for the sake of its own advantage, to throttle free inquiry. They involve ultimately, therefore, the whole principle of progress in the social order. Unless that freedom of research, of teaching, and of public utterance which every self-respecting scholar claims as his inalienable privilege is guaranteed, the university suffers paralysis in all its members. Should the disease become general, the seriousness of its effect upon the whole scheme of American education is not easily estimated. Hence much more is at stake in any particular instance of the alleged infringement of academic freedom than (as has been suggested) the "ferocious virtue" of an individual professor or than the collective sensitiveness of a professional caste.

In view of these considerations the recent series of such instances, which has almost the appearance of an epidemic, deserve extended discussion. The beginnings of such a discussion will be found in the chapter on higher education in the Annual Report of the Commissioner of Education for 1915 (p. 157 et seq). Some of the wider implications of the question of academic freedom were then mentioned. The reports of several committees appointed by various associations of scholars to investigate cases of disciplinary action visited by boards of trustees on professors accused of expressing unpopular opinions were summarized. The formation of the American

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Association of University Professors and its inevitable preoccupation with this matter were noted

During the past year a series of reports dealing with other cases of alleged breaches of academic freedom have emanated from this association. The findings of each of its committees of inquiry are summed up in the following pages. By far the most significant document published by the association, however, is the report of the general committee of 15 (mentioned in the commissioner's report, 1915, p. 161) on academic freedom and academic tenure, submitted to the association at its second annual meeting, in December, 1915. Both the representative and responsible character of the association which issues it and the eminence of the men whose signatures are attached would bespeak for the report in any event the careful consideration of university boards and executives. Its content, moreover, is worthy of its authors and its sponsor. It constitutes probably the most valuable contribution of the year to the discussion of educational policy. Although the pamphlet has already been widely distributed by the Bureau of Education among those concerned with the direction of higher education, considerable excerpts from it are given here for the benefit of that still more extensive public that is reached by these bulletins.

GENERAL REPORT OF THE COMMITTEE ON ACADEMIC FREEDOM AND ACADEMIC TENURE OF THE AMERICAN ASSOCIATION OF UNIVERSITY PROFESSORS.

The report is divided into two parts, the first a general declaration of principles which it is hoped will promote a clearer understanding of the issues, and the second a group of practical proposals designed at the same time to safeguard academic freedom and to protect university executives and governing boards from unjust charges of its infringement.

It is pointed out in Part I that academic freedom, in so far as it concerns the teacher, comprises three elements—freedom of research, freedom of teaching within the institution, and freedom of extra-mural utterance and action.

The first of these is almost everywhere so safeguarded that the dangers of its infringement are slight. It may therefore be disregarded in this report. The second and third phases of academic freedom are closely related, and are often not distinguished. The third, however, has an importance of its own, since of late it has perhaps more frequently been the occasion of difficulties and controversies than has the question of freedom of intra-academic teaching.

The committee is of the opinion, however, that the principles which have to do with the freedom of teaching are substantially the same whether intra- or extra-mural activities are considered. It therefore assumes that its declaration with respect to freedom of

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teaching within the university is applicable in the main to the freedom of speech of university teachers outside their institutions.

The report distinguishes between two radically different types of institutions, the relatively rare proprietary schools designed for the propagation of specific doctrines, religious or economic, and the ordinary college or university not strictly bound to a propagandist duty. The obligations of the boards of trust of the former are plain, and in such institutions the question of academic freedom can not properly arise. There is, and in the nature of things can be, no genuine freedom in them. Such institutions are comparatively innocuous, because the badge of their servitude is generally not concealed. It stands as a "caveat emptor" to warn away every competent scholar whose scientific conscience still functions. In case this revelation of the institution's true purpose is not made, however, it manifestly should be made.

The nature of the trust reposed in the governing boards of what the report significantly calls "untrammeled institutions of learning" is emphatically declared to be public. Whether the institution be a State institution or a privately endowed institution appealing to the general public for support and patronage, "the trustees are trustees for the public. * * * They can not be permitted to assume the proprietary attitude and privilege * * * they have no moral right to bind the reason or the conscience of any professor." "This elementary distinction between a private and a public trust is not yet so universally accepted as it should be in our American institutions," but it is essential that it be recognized by governing boards.

The preservation of the dignity and independence of the professorate is necessary not only to bring into the profession men of high gifts and character, but also to insure the honest performance of their function of dealing with knowledge at first hand and reporting the results without fear or favor.

The proper discharge of this function requires (among other things) that the university teacher shall be exempt from any pecuniary motive or inducement to hold or to express any conclusion which is not the genuine and uncolored product of his own study or that of fellow specialists. Indeed, the proper fulfillment of the work of the professorate requires that our universities shall be so free that no fair-minded person shall find any excuse for even a suspicion that the utterances of university teachers are shaped or restricted by the judgment, not of professional scholars, but of inexpert and possibly not wholly disinterested persons outside of their ranks. The lay public is under no compulsion to accept or to act upon the opinions of the scientific experts whom, through the universities, it employs. But it is highly needful, in the interest of society at large, that what purport to be the conclusions of men trained for and dedicated to the quest for truth shall in fact be the conclusions of such men, and not echoes of the opinions of the lay public or of the individuals who endow or manage universities. To the degree that professional scholars, in the formation and promulgation of their opinions, are, or by the character of their tenure

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appear to be, subject to any motive other than their own scientific conscience and a desire for the respect of their fellow experts, to that degree the university teaching profession is corrupted; its proper influence upon public opinion is diminished and vitiated; and society at large fails to get from its scholars in an unadulterated form the peculiar and necessary service which it is the office of the professional scholar to furnish.

The committee then takes up the relationship between university trustees and members of university faculties in what is probably the most important pronouncement of the whole report. "The latter are the appointees, but not in any sense the employees, of the former. For, once appointed, the scholar has professional functions to perform in which the appointing authorities have neither competency nor moral right to intervene. * * * So far as the university teacher's independence of thought and utterance is concerned—though not in other regards—the relationship of professor to trustees may be compared to that between judges of the Federal courts and the Executive who appoints them. University teachers should be understood to be, with respect to the conclusions reached and expressed by them, no more subject to the control of the trustees than are judges subject to the control of the President, with respect to their decisions."

It is pointed out that in the earlier days of American universities the chief menace to academic freedom was ecclesiastical and that philosophy and the natural sciences were the subjects chiefly affected, but that now the danger zone has been shifted to the social sciences.

The special dangers to freedom of teaching in the domain of the social sciences are evidently two. The one which is the more likely to affect the privately endowed colleges and universities is the danger of restrictions upon the expression of opinions which point toward extensive social innovations, or call in question the moral legitimacy or social expediency of economic conditions or commercial practices in which large vested interests are involved. In the political, social, and economic field almost every question, no matter how large and general it at first appears, is more or less affected with private or class interests; and, as the governing body of a university is naturally made up of men who through their standing and ability are personally interested in great private enterprises, the points of possible conflict are numberless. When to this is added the consideration that benefactors, as well as most of the parents who send their children to privately endowed institutions, themselves belong to the more prosperous and therefore usually to the more conservative classes, it is apparent that, so long as effectual safeguards for academic freedom are not established, there is a real danger that pressure from vested interests may, sometimes deliberately and sometimes unconsciously, sometimes openly and sometimes subtly and in obscure ways, be brought to bear upon academic authorities.

On the other hand, in our State universities the danger may be the reverse. Where the university is dependent for funds upon legislative favor it has sometimes happened that the conduct of the institution has been affected by political considerations; and where there is a definite governmental policy or a strong public feeling on economic, social, or political questions, the menace to academic freedom may consist in the repression of opinions that in the particular political situation are deemed ultraconservative rather than ultraradical.

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Although the fact is not generally recognized, "the existence in a democracy of an overwhelming and concentrated public opinion" may also constitute a serious obstacle to the real liberty of the individual. "An inviolable refuge from such tyranny should be found in the university. It should be an intellectual experiment station, where new ideas may germinate and where their fruit, though still distasteful to the community as a whole, may be allowed to ripen until finally, perchance, it may become a part of the accepted intellectual food of the Nation or of the world."

It is not, however, the purpose of the report to imply that the university teacher is to be subject to no restraints whatever. "The liberty of the scholar within the university to set forth his conclusions, be they what they may, is conditioned by their being conclusions gained by the scholar's method and held in a scholar's spirit; that is to say, they must be the fruits of competent and patient and sincere inquiry, and they should be set forth with dignity, courtesy, and temperateness of language." Departures from the requirements of the scientific spirit and method should be judged by members of the academic profession itself and not by outsiders. The means for providing such judicial action by representatives of the profession are discussed among the practical proposals.

Part II proposes four measures to be adopted by universities with a view to preserving academic freedom, protecting governing boards themselves, and bringing into the academic profession men of ability and strong personality. They are, reduced to lowest terms:

1. Action by faculty committees on reappointments.
2. Definition of tenure of office, in order that there may be at every institution "an unequivocal understanding as to the term of appointment; and the tenure of professorships and associate professorships, and all positions above the grade of instructor after 10 years of service, should be permanent (subject to provisions hereinafter given for removal upon charges)."
3. Formulation of grounds for dismissal.
4. Judicial hearings before dismissal. "Every university or college teacher should be entitled, before dismissal or demotion, to have the charges against him stated in writing in specific terms and to have a fair trial on those charges before a special or permanent judicial committee chosen by the faculty senate or council, or by the faculty at large."

This important report was signed by 13 of the committee of 15 (2 having resigned during the progress of the committee's deliberations), as follows:

Edwin R. A. Seligman, chairman, Columbia University; Charles E. Bennett, Cornell University; James Q. Dealey, Brown University; Richard T. Ely, University of Wisconsin; Henry W. Farnam, Yale University; Frank A. Fetter, Princeton University; Franklin H. Giddings, Columbia University; Charles A. Kofoid, University of California; Arthur O. Lovejoy, Johns Hopkins University; Frederick W. Padelford, University of Washington; Roscoe Pound, Harvard University; Howard C. Warren, Princeton University; Ulysses G. Weatherly, University of Indiana.

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REPORTS OF SPECIAL COMMITTEES OF INQUIRY OF THE AMERICAN ASSOCIATION OF UNIVERSITY PROFESSORS.

Special committees to investigate alleged infringements of academic freedom at the University of Utah, the University of Montana, the University of Colorado, and the University of Pennsylvania were appointed during the first year of the association's existence. The report on conditions at the University of Utah was published in July, 1915, and was discussed in the preceding issue of this document (see Report of the Commissioner of Education, 1915, p. 161 et seq.). At a meeting of the association in December, 1915, the reports of the committees on the incidents at the universities of Colorado and Pennsylvania were submitted, together with a summary report of the general committee on academic freedom and academic tenure on the case of Prof. Willard C. Fisher, of Wesleyan University, a case referred to the general committee by an earlier committee of nine from the American Economic Association, the American Political Science Association, and the American Sociological Society. (See Report of the Commissioner of Education, 1915, p. 160 et seq.) All three of these reports have since been published by the association.[1] The capacity of the association to deal with matters affecting the welfare of its own members in a judicial manner, without restraint, and with perfect fairness toward all concerned is conspicuously demonstrated in these documents. Moreover, its findings and suggestions have already helped to bring about at two institutions radical revisions of the regulations relating to professorial tenure.

THE COLORADO CASE.

In June, 1915, Prof. James H. Brewster, who had been a teacher of law at the University of Colorado during the year 1914–15, and who failed of reappointment at the end of the year, charged that "this failure to reappoint, in view of the admission of the president of the university that Mr. Brewster had performed his teaching duties with 'eminent satisfaction,' was practically a dismissal; and that 'the only causes for this dismissal are the facts that I testified to the truth before the Commission on Industrial Relations (Dec. 7 and 8, 1914), and that I appeared as counsel for the Miners' Union before a congressional committee in February and March, 1914'". He further charged that on May 7, 1915, President Farrand, upon being shown a telegram from the chairman of the Commission on Industrial Relations requesting Mr. Brewster to come to Washington to testify again before the commission, stated that "if he complied

[1] The committee of inquiry on the Montana case was not ready to report at the December meeting. It was authorized to lay its report when finished before the association in print.

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with Chairman Walsh's request his connection with the university must cease at once—that is, before the expiration of the then current university session." In an open letter President Farrand denied both charges and shortly thereafter requested the American Association of University Professors to investigate the case. A summary of the committee's findings, somewhat abridged, follows:

The reason actuating the authorities of the University of Colorado * * * in not reappointing Prof. Brewster * * * was not, as charged, Prof. Brewster's testimony before the United States Commission on Industrial Relations nor his utterances or opinions on industrial questions in Colorado. On the contrary, the committee is satisfied on the evidence that the university authorities had in mind, prior to the original appointment of Mr. Brewster, a plan for the reconstruction of the law faculty * * *; that [his] appointment * * * was not intended to be renewed or extended beyond the time when payment [of a certain] bequest should make the reconstruction possible; and that this contingency occurred in the spring of 1915. * * *

The evidence does not sustain the charge that President Farrand threatened Prof. Brewster, in the conversation of May 7, 1915, with dismissal. * * * On the contrary, * * * the evidence distinctly indicates the improbability that such a threat was made.

These findings involve the exoneration of the authorities of the University of Colorado from any charge of infringement of academic freedom in their action with respect to Prof. Brewster. The implied intimation of President Farrand in the conversation of May 7 that permanent members of the Colorado faculty do not in his opinion have full liberty in the performance of civic duties, while deplorable, was purely inferential and apparently unconscious. * * * It appears reasonable to assume that the true attitude of President Farrand was expressed in December, 1914. When actually called upon by the governor of the State to commit an infringement of academic freedom, under circumstances that would have clouded the vision of an executive who might be inclined to put the immediate wants of his institution above principles of more remote value, we find President Farrand firmly acting for the ultimate welfare of the university, and asserting the principle that the conscientious utterances of a university professor in the performance of his duties imposed upon him as a citizen may not be called in question by the administrative authorities of the institution with which he is professionally connected.

The committee points out in conclusion that a rule requiring that teachers whose terms are about to expire should receive definite notice not later than three months before the end of the academic year whether their appointment is to be renewed would have saved both the university and Mr. Brewster embarrassment and possible injury.

THE WESLEYAN CASE.

The summary report of the committee of fifteen on the resignation, at the request of the president, of Prof. Fisher, of Wesleyan University, in 1913, was, in view of the length of time which has elapsed since the case was first publicly discussed, "limited to a statement of the position taken on each of the three questions of major importance." The report says in part:

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1. According to correspondence that passed between President Shanklin and Prof. Fisher the ostensible ground upon which his resignation was called for was an utterance incidentally made by Prof. Fisher in an address, not intended for publication, before a men's literary club at Hartford, Conn. In this address certain opinions regarding church going and Sunday observance were expressed. The committee is of the opinion that the ground upon which Prof. Fisher's removal was officially based was inadequate. * * *

2. If the ostensible ground of Prof. Fisher's dismissal was not the real ground, if it was made an occasion for dismissing a man objectionable to president or trustees or benefactors of the university for reasons other than the one alleged, this committee regards the procedure as objectionable. * * *

If such a method of college government goes unchallenged as a precedent, there can be no guaranty of ordinary personal liberty in thought and expression or of security of tenure for any scientific or economic teacher. We can not too earnestly insist that the dismissal of a college or university professor should be accompanied by a frank and straightforward statement of the actual reasons therefor and by full opportunity for inquiry by all legitimately interested parties. * * *

3. The committee regrets that Prof. Fisher so readily tendered his resignation upon the demand of President Shanklin, based, as that demand officially was, upon manifestly insufficient and inadmissible grounds. The committee expresses the hope that in future both professors and university administrative authorities will realize, and in their actions acknowledge, the importance of full investigation, with ultimate publicity in view, of every case of dismissal or enforced resignation in which the question of academic freedom may be raised.

THE NEARING CASE.

Probably no other case of the alleged infringement of academic freedom has attracted such widespread interest and has given rise to such prolonged and heated controversy in the public prints as has the case of Prof. Scott Nearing, whose appointment as assistant professor of economics at the University of Pennsylvania was, contrary to all expectation and precedent, not renewed in the spring of 1915. The facts, as far as they were then obtainable, were stated in the commissioner's report for 1915, page 165 et seq. The commonly assumed cause of Dr. Nearing's virtual dismissal and the attitude of various members of the university board of trustees and of groups of alumni toward the questions at issue were also indicated. A very brief summary of the findings of the committee of inquiry of the American Association of University Professors therefore is sufficient to complete, for the purposes of these reports, the record of this incident. This summary follows:

I. As to the procedure followed by the board of trustees in its action with reference to this member of the university faculty, the following facts are established:

1. The position held by Dr. Nearing was one carrying a definite presumption of reappointment in case of satisfactory service.

2. It was duly made known to the board of trustees by the department of economics and by the dean of the Wharton School that Dr. Nearing's service

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was regarded as satisfactory; and he was expressly recommended for reappointment. The board was also informed by the dean that this recommendation had the substantial support of the Wharton School faculty.

3. This recommendation of the qualified representatives of the educational staff of the Wharton School was rejected by the board of trustees on June 14 without further consultation with those representatives, without reference of the case for judicial inquiry to any faculty committee, and (originally) without assignment of reason.

4. The board's own action on June 14 was not judicial in character. No opportunity for a hearing upon the charges or criticisms made against him was afforded Dr. Nearing; nor did the board conduct any inquiry on its own account to ascertain whether the persons outside the university, by whose criticisms the board declares its action to have been determined, had been correctly informed as to Dr. Nearing's utterances or had correctly understood them, or whether their criticisms were, in fact, justified by the authentic language of the utterances in question.

The committee holds that such procedure provides no proper safeguard for academic freedom; that it gives the individual academic teacher no adequate security against substantial injustice; and that it secures to the faculty or its representatives no sufficient voice in relation to questions of reappointment and removal.

II. As to the grounds or causes of the action of the board of trustees in refusing Dr. Nearing reappointment, the two following facts are established and appear to the committee decisive:

1. The only statement of reasons which the board as a whole has officially given declares this action to have been made necessary by the attitude taken toward Dr. Nearing by persons outside the board, including some who knew him only by his public utterances.

2. The most important representatives of such an attitude of disapproval and antagonism toward Dr. Nearing were a group of alumni of conservative views, whose criticisms had been repeatedly voiced in the Alumni Register and in the reports of the alumni committee on the Wharton School. The objections of these as of certain other known critics of Dr. Nearing were expressly based, at least in part, upon the character of his economic opinions and the content of his utterances upon social questions.

The committee is accordingly compelled to conclude that at least a contributory cause of Dr. Nearing's removal was the opposition of certain persons outside the university to the views, upon questions within his own field of study, expressed by him in his extra-mural addresses.

It concludes:

Removal or refusal of appointment wholly or partly upon such a ground, without judicial inquiry by any committee of fellow economists or other scholars, the committee can only regard as an infringement of academic freedom.

THE NEW STATUTES OF THE UNIVERSITY OF PENNSYLVANIA.

This incident, otherwise regrettable, has apparently led the trustees of the University of Pennsylvania to alter the regulations previously in force with regard to the tenure of teaching positions and the procedure in the dismissal of professors. Indeed, evidence is not wanting that the activities of the Association of University Professors

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may have had influence in the decision of the board to take this step. Although the new regulations do not coincide with the association's "practical proposals" (see p. 55)—in fact, were adopted before the association's committee made its report—nevertheless they represent a conscientious effort to attain substantially the same ends. In view of their very great significance in the evolution of a just and efficient method of university government in the United States, these new statutes are given here with only slight abridgment.

(1) There shall be four grades in the teaching staff: (*a*) Professor; (*b*) assistant professor; (*c*) instructor; (*d*) assistant.

(2) Before any reappointments or promotions of members of the teaching staff shall be made, the trustees shall request the group of instruction of which the appointee is, or is to become, a member to make a recommendation. The recommendation shall be given careful consideration by the trustees, and, if approved by the provost and the board of trustees, shall be followed. In the event of the nonapproval of any such recommendation, or in the event that no recommendation shall be made, the provost and the board of trustees shall proceed to make such reappointments or promotions as their judgment approves. In all cases in which the board of trustees shall feel it to the interest of the university, they shall in like manner request the advice of the proper group of instruction in reference to original appointments. * * *

(3) A professor shall be appointed for an indefinite term.

(4) An assistant professor shall receive a first appointment for a term of three years. Subsequent reappointments shall be for the terms of five years each.

(5) Instructors and assistants shall be appointed for a term of one year.

(6) The foregoing appointments shall respectively cease at the expiration of the several terms mentioned, unless notice of renewal shall have been given by the provost in writing, in case of instructors and assistants, not later than the first day of April preceding the expiration of the academic year for which the appointment was made, and in the case of an assistant professor, at least one academic year before the expiration of the term for which the appointment or reappointment was made. In the event of a decision by the trustees not to continue an appointment or reappointment of an assistant professor, or to remove the professor or assistant professor as hereinafter provided in paragraph 7, leave of absence may be given to such professor or assistant professor by the trustees for one year with full salary. All appointments are subject to the regulation covering the retiring age.

(7) A professor shall be removed, an assistant professor removed or refused reappointment by the board of trustees, only after a conference between a committee consisting of one representative from each of the faculties in the university (such representative being chosen by the faculty of which the representative is a member), and a committee of equal number from the board of trustees, at which conference the provost shall preside, and upon a report of such conference to the board of trustees, for consideration and action by them.

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DEPARTMENT OF THE INTERIOR
BUREAU OF EDUCATION

BULLETIN, 1916, No. 47

REPORT ON THE WORK OF THE BUREAU OF EDUCATION FOR THE NATIVES OF ALASKA, 1914-15

WASHINGTON
GOVERNMENT PRINTING OFFICE
1917

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REPORT ON THE WORK OF THE BUREAU OF EDUCATION FOR THE NATIVES OF ALASKA, 1914-15.

PART I.—GENERAL SUMMARY.

During the fiscal year ended June 30, 1915, the field force of the Bureau of Education in Alaska consisted of 5 superintendents, 1 assistant superintendent, 97 teachers, 7 physicians, and 8 nurses. Sixty-seven schools were maintained, with an enrollment of 3,436 and an average attendance of 1,963.

In addition to maintaining schools for the native children in Alaska, the bureau has continued its endeavors in behalf of the entire native communities by extending medical relief, by maintaining sanitary methods of living in the villages, by promoting the industries conducted by the natives, and by relieving destitution.

Of the appropriation for "Education of natives of Alaska for the fiscal year ended June 30, 1915," more than $25,000 was used in employing seven physicians and eight nurses; in maintaining improvised hospitals at Nulato, Kotzebue, and Kanakanak; in payments under contracts with St. Ann's Hospital at Juneau, with the Good Samaritan Hospital at Valdez, with the Holy Cross Hospital at Nome, with the Fairhaven Hospital at Candle, and with the Children's Orthopedic Hospital at Seattle, for the treatment of natives; also, as heretofore, in furnishing the teachers of the United States public schools with medical supplies and medical books in order to enable them to treat minor ailments. The efforts of the bureau to secure from Congress a specific appropriation to provide for the medical and sanitary relief of the natives of Alaska have met with success, $25,000 having been granted for that purpose for the fiscal year 1915–16.

Much of the sickness prevailing among the natives of Alaska is caused by the eating of food which has not been properly prepared. The waters of Alaska teem with fish, and wild berries grow in profusion throughout its vast area, but in many villages, according to the ancient practice, fish for winter use are either dried in the sun, crudely smoked, or buried in the earth, while the berries are preserved in oil. In order to replace these primitive methods, during

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the summer of 1914 steam home canning outfits for use in preserving fish and meat, as well as berries and vegetables, were sent to three of the largest villages. It is hoped that the use of such outfits will become general in the native communities.

One of the most effective agencies for the advancement in civilization of a native village is the establishment in it of a cooperative store owned by the natives and managed by them, under the supervision of a teacher of a United States public school, resulting in the securing of articles of food and clothing at equitable prices, the dividing among the natives themselves of profits which would otherwise go to a white trader, and in the acquiring by the natives of self-confidence and experience in business affairs. It is most encouraging to note the ability which the natives have shown in conducting these enterprises. According to the district superintendent, the income of the village of Atka has increased 150 per cent because of the establishment of its cooperative store. The cooperative stores at Hydaburg, Klawock, Klukwan, and on St. Lawrence Island have also met with success.

In continuation of the policy of setting aside carefully selected tracts to which large numbers of natives can be attracted, and within which, secure from the intrusion of unscrupulous white men, the natives can obtain fish and game and conduct their own industrial and commercial enterprises, and within which the bureau can concentrate its efforts, during the year reservation was made by Executive order of a tract on the Kobuk River, in Arctic Alaska, also of a tract on the northern shore of Cook Inlet, including the village of Tyonek and its surroundings. The reservation of the tract on the Kobuk River was made in compliance with the urgent request of the natives of Deering on Kotzebue Sound, who wished to migrate from the village which had been their home from time immemorial, because life in it had become increasingly difficult, the development of mining and the influx of white men having resulted in the killing off of game animals and in great scarcity of fuel. Within their new reservation on the shores of the remote Arctic river these natives can secure an abundant supply of fish, game, and timber, and can build up a new village for themselves.

In 1891, when setting apart Annette Island as a reserve for the use of the Metlakatlans and such other Alaskans as might join them, Congress empowered the Secretary of the Interior to prescribe rules and regulations for the reserve. However, this authority was not exercised, because it was felt that the advancement of the Metlakatlans could best be secured by letting them develop under the sole leadership of Mr. William Duncan, the founder of that unique colony. When it became necessary in the best interests of the Metlakatlans to establish and maintain a United States public school in Met-

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lakatla, and otherwise to assume responsibility in connection with the interests of the Metlakatlans, it was deemed advisable to prescribe a code of regulations for the government of the colony, which was put into effect by the Secretary of the Interior January 28, 1915. Under these regulations the government of Annette Islands Reserve is vested in an elective council of 12 members, with power to pass such ordinances for the local government of the reserve as are not in conflict with the laws of the United States, the laws of the Territory of Alaska, or the regulations prescribed by the Secretary of the Interior.

At its recent session the Alaska Territorial Legislature passed two acts of vital importance to the Alaskan natives. The act to define and establish the political status of Alaskan natives, approved April 27, 1915, provides for the acquiring of citizenship by natives of Alaska. It empowers a United States judge to issue a certificate of citizenship to a native who has severed all tribal relations, adopted the habits of civilization, satisfied the teachers of a United States public school or a territorial or a municipal school of his qualifications for citizenship, and obtained the indorsement of his claim by five citizens. The act to provide for local self-government in native villages in Alaska, approved April 21, 1915, provides that a United States commissioner, after a proper hearing, may authorize the organization for self-government of any native village in Alaska having not less than 40 permanent inhabitants above the age of 21. The form of government provided for such villages is similar to that prescribed by the Secretary of the Interior for Annette Islands Reserve.

THE REINDEER SERVICE.

The reports from the reindeer stations for the fiscal year ended June 30, 1915, show a total of 70,243 reindeer, distributed among 76 herds. Of the 70,243 reindeer, 46,683, or 66 per cent, were owned by 1,140 natives; 3,408, or 5 per cent, were owned by the United States; 6,890, or 10 per cent, were owned by missions; and 13,262, or 19 per cent, were owned by Lapps and others. The total income of the natives from the reindeer industry during the fiscal year, exclusive of the meat and hides used by the natives themselves, was $81,997. The total, 70,243, is a net increase of 21 per cent during the fiscal year, notwithstanding the fact that nearly 9,000 reindeer were killed for meat and skins during the year.

The reindeer enterprise in Alaska has successfully passed through two stages—the introduction of the reindeer to a new country and people, and the development of an administration which has established the industry in the coastal region from Point Barrow to the

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Aleutian Peninsula. There remains the successful commercializing of the industry, the advancement of the enterprise from a branch of industrial education to one of the industries of the country.

Realizing that the establishment of an export trade in reindeer products is essential to the success of the enterprise, the bureau is encouraging the shipment of reindeer meat and hides from Alaska to the States. The last steamer to leave Nome before the closing of navigation by ice brought to Seattle in October, 1914, 25 carcasses of reindeer, which were placed on sale in Seattle, retailing at from 20 to 35 cents per pound. The chief of the Alaska Division also brought from Nome 3 carcasses to be distributed among the five continental railway lines running out of Seattle, in order that reindeer meat might be given a trial on dining cars, with a view to securing for the natives contracts for the delivery of reindeer meat each season.

During the winter of 1914–15 the bureau's superintendent, who is situated at Nome, with the approval of the Commissioner of Education, distributed among the Eskimo herders in northwestern Alaska a proposal from a cold-storage company operating between Seattle and Nome to market in Seattle for the Eskimos on a commission basis the reindeer meat consigned to said company. This action will probably result in the shipment of a considerable quantity of reindeer meat from Nome during the summer. The responsibility of accepting or rejecting the proposal of the cold-storage company will rest with the native owners of reindeer, the superintendents acting in an advisory capacity and assisting in making the necessary arrangements.

Soon after the inception of the reindeer enterprise certain Lapps were brought from Lapland to Alaska and employed by the bureau as instructors of the Eskimos in the care and management of the reindeer, each Lapp receiving a certain number of reindeer in payment for his services. During the summer of 1914 a company, organized at Nome, purchased about 1,200 reindeer from one of these Lapps. This company intends to purchase other herds now owned by Lapps, and to engage in the exportation of reindeer meat and hides.

Under the supervision of the superintendent of the northwestern district a very successful convention, attended by about 200 of the Eskimos engaged in the reindeer industry on the Seward Peninsula, was held at Igloo from January 11 to 17. The main object of the convention was the exchange of experiences and opinions on matters connected with the raising and the utilizing of reindeer. The discussions included such subjects as the best way to slaughter a reindeer and prepare it for market, the most satisfactory forms of sleds

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and harness, and the best methods of driving reindeer. There were also shooting matches, rope-throwing contests, wrestling bouts, and many kinds of races with reindeer. The exhibits included sets of harness, sleds, halters, and clothing made of reindeer skin, for which prizes were awarded. The success of this convention will probably result in the holding of similar conventions annually in various centers of the reindeer industry.

The reindeer industry is now extending from the mainland to the outlying islands. During August, 1914, upon the request of the Department of the Interior, the revenue cutter *Manning* conveyed a herd of 40 reindeer from Ugashik, on the Alaska Peninsula, to Atka, a remote island in the Aleutian chain, where it will be a valuable factor in alleviating the deplorable conditions which have hitherto prevailed upon that desolate island. The extension of the reindeer industry into southeast Alaska was begun during October by the shipment to Metlakatla, on Annette Island, of eight reindeer from the herd in the vicinity of Nome.

LIST OF PERSONS IN THE ALASKA SCHOOL SERVICE, 1914–15.

William T. Lopp, superintendent of education of natives of Alaska and chief of the Alaska Division, Alaska.

Employees in the Washington Office.

William Hamilton, Alaskan assistant, Pennsylvania.
David E. Thomas, accountant, Massachusetts.
James O. Williams, junior clerk, Illinois.

Employees in the Supply and Disbursing Office, Seattle.

Harry C. Sinclair, supply agent, Maryland.
Alexander H. Quarles, special disbursing agent, Georgia.
Chauncy C. Bestor, assistant supply agent, Washington.
Julius C. Helwig, clerk and stenographer, Indiana.

Employees in Alaska.

District superintendents of schools.

Walter C. Shields, northwestern district, Nome.
Andrew N. Evans, western district, Unalakleet.
George E. Boulter, upper Yukon district, Tanana.
Henry O. Schaleben, southwestern district, Seward.
William G. Beattie, southeastern district, Juneau.

Special disbursing agent and assistant district superintendent of schools in the northwestern district of Alaska.

Walter H. Johnson, Nome.

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Physicians.

Emil Krulish, M. D., Public Health Service, on special detail.
Henry O. Schaleben, M. D., superintendent southwestern district, Seward.
Bruce H. Brown, M. D., Nulato, to September 15, 1914.
Edgar O. Campbell, M. D., Klawock and Sitka.
Linus H. French, M. D., Nushagak.
Frank W. Lamb, M. D., Nulato, from September 16, 1914.
Daniel S. Neuman, M. D., Nome.
H. N. T. Nichols, M. D., Kotzebue.
J. W. Reed, M. D., Bethel and Russian Mission.

Nurses and teachers of sanitation.

Mrs. Anna G. Barton, Kogiung.
Mrs. Clara M. Brown, Nulato, to September 15, 1914.
Miss Esther Gibson, southeastern district, to April 30, 1915.
Mrs. Carrie W. Jordan, St. Michael and Unalakleet.
Miss Harriet R. Kenly, Nome.
Mrs. Carrie W. Lamb, Nulato, from September 16, 1914.
Mrs. Louise M. Nichols, Kotzebue.
Mrs. Emma B. Reed, Bethel and Russian Mission.
Mrs. Marie Umgukh, Kanakanak, from September 16 to December 31, 1914.

Teachers and school attendance, 1914–15.

NORTHWESTERN DISTRICT—ARCTIC OCEAN AND BERING SEA REGIONS AS FAR SOUTH AS THE KOYUK RIVER, INCLUDING ST. LAWRENCE ISLAND.

Schools.	Teachers.	Appointed from—	Average daily attendance.	Enrollment.	Months teacher employed.
Barrow	Telbert L. Richardson	Washington	79	109	12
	Mrs. Carrie Richardson	do			
	Roy Ahmaogak	Alaska			
	Mrs. Belle C. Cram	Washington			
Buckland	Mrs. Iva K. Taber	Alaska	14	29	5½
Council	Mrs. Lulu J. Welch	do	18	41	6½
Deering	Charles Replogle	Washington	39	51	12
	Mrs. Clara Replogle	do			
Diomede	Chas. Menadelook	Alaska	13	19	7
Gambell	John F. Coffin	California	48	78	12
	Mrs. Mary Coffin	do			
Golovin	Miss Anna Hagberg	Illinois	28	31	8½
	Miss Mary K. Westdahl	Alaska			
Igloo	H. D. Reese	Pennsylvania	37	52	12
	Edwin W. Hunnicutt	Wyoming			
Kivalina	Clinton S. Replogle	Washington	31	51	10
Kotzebue	Miss Cora B. Hawk	Pennsylvania	34	56	12
Noatak	Clarence Ausley	Oregon	33	45	10
	Mrs. Sue B. Ausley	do			
Nome	Miss Edna Cameron	Alaska	27	51	10
Selawik	Robert Samms	California	30	42	12
Shishmaref	Thomas W. Schultz	do	28	55	10
Shungnak	Fred M. Sickler	Pennsylvania	30	74	12
Sinuk	Miss Grace A. Hill	Alaska	23	47	9
Teller	Miss Dagny Brevig	Washington	20	28	8
Wainwright	Wm. B. Van Valin	do	23	45	12
Wales	James H. Maguire	Alaska	66	92	12
	Miss Mattie A. Caldwell	Missouri			
	Arthur Nagozruk	Alaska			
	Mrs. James H. Maguire	do			
Total			616	996	

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WESTERN DISTRICT—BERING SEA REGION, BETWEEN KOYUK RIVER AND CAPE NEWENHAM.

Schools.	Teachers.	Appointed from—	Average daily attendance.	Enrollment.	Months teacher employed.
Akiak	John H. Kilbuck	Alaska	39	59	12
	Joseph H. Kilbuck	do			
Akulurak	Miss Mary Laurentia	do	50	57	7
Bethel	Mrs. Bertha J. Boyd	Washington	47	62	12
Goodnews Bay	Claude M. Allison	do	11	14	12
Hamilton	H. Ray Fuller	do	18	22	10
Holy Cross	Miss Mary Bernadette	Alaska	111	121	9
	Miss Mary Thecla	do			
Hooper Bay	John S. Calkins	Montana	34	60	11
Kinak	W. D. McMillan	Washington	13	27	12
Mountain Village	Walter E. Cochran	West Virginia	20	37	12
	Mrs. Minnie Cochran	do			
Nulato	Miss Mary Salley	Alaska	38	64	9
Pilot Station	Elmer E. Harnden	Washington	25	33	10
Quinhagak	Miss Marie E. Stecker	Alaska	17	28	8
Russian Mission	Howard Reed	Louisiana	16	29	3
St. Michael	Floyd L. Allen	Michigan	18	55	12
	Mrs. Gladys M. Allen	do			
Shageluk	G. A. Danforth	Washington	14	22	11
	Mrs. Rena C. Danforth	do			
Shaktolik	Misha Ivanoff	Alaska	23	35	9
Unalakleet	Elmer E. Van Ness	Tennessee	46	75	12
	Samuel Anaruk	Alaska			
	Miss Eva Rock	do			
Total			540	800	

UPPER YUKON DISTRICT—VALLEYS OF THE YUKON AND ITS TRIBUTARIES BETWEEN 141° AND 157°.

Circle	Mrs. Ella E. Eby	Alaska	19	32	10½
Eagle	Miss Lula Graves	do	11	28	9½
Louden	Miss Nora Dawson	Missouri	10	14	7
Tanana	Miss Margaret Harper	California	8	18	10
Yukon	Mrs. Veta McIntosh	Oregon	22	78	8
Total			70	170	

SOUTHWESTERN DISTRICT—BERING SEA REGION SOUTH OF CAPE NEWENHAM AND NORTH PACIFIC COAST REGION WEST OF 141°.

Atka	Amoe B. Carr	Washington	17	36	10
	Mrs. Ella D. Carr	do			
Chignik	Mrs. Lura Olsen	Alaska	24	41	1½
Chogiung	Mrs. Corinne Call	Washington	63	74	12
	Peter Nelson	Alaska			
Copper Center	Arthur H. Miller	Washington	6	24	10
Iliamna	Preston H. Nash	do	18	22	12
	Mrs. Preston H. Nash	do			
Kogiung	George A. Barton	do	14	22	12
Kulukak	James G. Cox	Alaska	22	33	12
Susitna	Mrs. May Cody	do	17	30	7
Tatitlek	Chesley W. Cook	Washington	37	46	12
	Mrs. Mary E. Cook	do			
Togiak	Walter H. Johnston	Alaska	12	24	12
Tyonek	Chas. M. Robinson	Washington	34	40	8
Ugashik	John W. Fuller	do	12	20	12
Unalaska	Will A. Wilson	Alaska	54	82	9
	Alma Wilson	do			
	Mrs. Kathryn D. Seller	do			
	Mrs. Mary Lavigne	do			
Total			330	494	

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SOUTHEASTERN DISTRICT—NORTH PACIFIC COAST REGION EAST OF 141°.

Schools.	Teachers.	Appointed.	Average daily atsendance.	Enrollment.	Months teacher employed.
Haines	Mrs. Nancy L. Alexander	Alaska	12	50	7
Hoonah	Charles F. Richardson	Washington	39	101	10
Hydaburg	Chas. W. Hawkesworth	Alaska	80	116	12
	Chas. E. Hibbs	Washington			
	Miss Ruth Armstrong	California			
	Miss Deane Armstrong	do			
Juneau	Mrs. Sadie E. Edmunson	Idaho	12	41	8
Kake	Mrs. Louise K. Milnes	Alaska	25	79	7
	Mrs. Belle Newton	do			
Killisnoo	Raphael Goodheart	Washington	19	59	12
	Mrs. Leona R. Goodheart	do			
Klawock	Chas. E. Hibbs	do	33	85	9½
	G. Wayne Dick	do			
Kiukwan	Fay R. Shaver	Alaska	25	57	11½
	Miss Frances M. Calkins	Washington			
Loring	Miss Margaret Hamilton	Alaska	11	15	6
Metlakahtla	Chas. D. Jones	Washington	86	208	11
	Harry F. Gell	Idaho			
	Miss Beatrice E. Bair	Washington			
	Mrs. Clara V. Jones	do			
Sitka	Mrs. Louisa K. Campbell	California	30	84	7
Wrangell	Miss Nellie M. Taylor	Nebraska	12	37	7½
Yakutat	Elof M. Axelson	Illinois	18	49	6
Total			407	976	

Summary of teachers and school attendance for the year 1914–15.

District.	Schools.	Teachers.	Pupils.	Daily attendance per school.	Enrollment per school.
Northwestern district	19	27	996	32	52
Western district	17	24	800	32	47
Upper Yukon district	5	5	170	14	34
Southwestern district	13	19	494	25	38
Southeastern district	13	22	976	31	75
Total	67	97	3,436	29	51

Expenditures from the appropriation for "Education of natives of Alaska, 1915."

Appropriation		$200,000.00
Salaries in Alaska	$94,358.01	
Equipment and supplies	15,498.15	
Fuel and light	19,363.38	
Local expenses	1,889.33	
Repairs and rent	4,155.37	
Buildings	14,475.06	
Medical relief	25,584.80	
Destitution	1,465.00	
Commissioner's office salaries	4,870.17	
Seattle office salaries	8,042.50	
Commissioner's office expenses	125.00	
Seattle office expenses	675.00	
Traveling expenses	9,071.65	
Contingencies	426.58	
Total		200,000.00

Expenditures from the appropriation for "Reindeer for Alaska, 1915."

Appropriation		$5,000
Salaries of chief herders	$500	
Supplies	3,850	
Establishing new herds	650	
Total		5,000

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General statistics of the Alaska reindeer service, 1914–15.

	Stations and herds.	Established.	Total reindeer in herd.	Government reindeer.	Mission reindeer.	Lapps and others.		Natives.												Sled reindeer.[2]		Income from sale of meat, freighting, etc.			
								Herders.		Owners.[1]		Apprentices.													
												Government.		Mission.		Lapps.		Herders and owners.		Total apprentices.	Total natives.	Reindeer owned.	Trained.	Being trained.	Mission.	Lapps and other whites.	Natives.	Total.
						Number.	Reindeer owned.	Number.	Reindeer.	Number.	Reindeer.	Number.	Reindeer.	Number.	Reindeer.	Number.	Reindeer.	Number.	Reindeer.									
1	Atka[3]	1914	50	50																								
2	Barrow, No. 1	1898	1,543	39				8	613	72	650	2	71					8	170	10	90	1,504	9				$4,432	$4,432
3	Barrow, No. 2	1909	841					4	601	9	130							4	110	4	17	841	36	8			[4] 3,500	[4] 3,500
4	Bethel, No. 1 (Akoolakotak)	1913	733					6	641	5	38							3	54	3	14	733	53				[4] 500	[4] 500
5	Bethel, No. 2 (Kilohalin)	1911	2,371			4	2,356									1	15			1		15	[4] 20			[4] $2,000	[4] 100	[4] 2,100
6	Bethel, No. 3 (Kivigluk)	1912	626					4	584									2	42	2	6	626	[4] 55				[4] 800	[4] 800
7	Bethel, No. 4 (Nukluk)	1907	691					5	601	8	80							1	10	1	14	691	[4] 50				[4] 900	[4] 900
8	Bethel, No. 5 (Tsulksak)	1902	2,877			5	2,877																[4] 45			[4] 2,500		[4] 2,500
9	Bethel, No. 6 (Oungogtulit)	1913	549					2	456	6	46							1	47	1	9	549	[4] 25				[4] 600	[4] 600
10	Bethel, No. 7 (Mission)	1901	1,908		1,658									11	250					11		250	[4] 60		[4] $600		[4] 100	[4] 700
11	Bethel, No. 8 (Kalkak)	1915	577	150		1	154	2	234	3	11	2	12			1	7			3	8	264	17	3		[4] 150	[4] 250	[4] 400
12	Buckland, No. 1	1911	532	83				6	324	14	125										20	449	13	3			[4] 600	[4] 600
13	Buckland, No. 2 (Sokweena)	1914	711	4	1			5	677	5	21	1	8							1	11	706	19	6			[4] 1,000	[4] 1,000
14	Cape Douglas, No. 1 (Okbaok)[3]	1911	473					4	155	3	318										7	473	10				600	600
15	Cape Douglas, No. 2 (Dunnak's)	1914	813					5	713	10	100										15	813	4				[4] 500	[4] 500
16	Cape Espenberg	1913	240							5	235							1	5	1	6	240	4				[4] 300	[4] 300
17	Chogiung	1910	813	247				8	460	1	6	4	100							4	13	566	[4] 15				[4] 800	[4] 800
18	Council[3]	1907	1,423					6	467	25	884							2	72	2	33	1,423	25	5			2,500	2,500
19	Deering, No. 1 (Lane River)[3]	1906	872					5	771	5	37							2	64	2	12	872	15	5			1,500	1,500
20	Deering, No. 2 (Good Hope)	1911	967	30	112			4	431	15	225							5	169	5	24	825	18	1	[4] 300		[4] 1,500	[4] 1,800
21	Deering, No. 3 (Kugruk)	1913	677					3	346	13	283							3	48	3	19	677	14	5			[4] 800	[4] 800
22	Dutch Harbor[3]	1913	17	17																								
23	Egavik[3]	1907	3,046			2	2,976	1	56							1	14			1	2	70	25	10		3,500	175	3,675
23	Gambell	1900	1,468	40				9	1,378	3	43							1	7	1	13	1,428	33	4			6,586	3,586

[1] By purchase or inheritance.
[2] Included in total.
[3] No reports received; all figures estimated.
[4] Estimated.

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General statistics of the Alaska reindeer service, 1914–15—Continued.

	Stations and herds.	Established.	Total reindeer in herd.	Government reindeer.	Mission reindeer.	Lapps and others.		Natives.												Sled reindeer.[2]		Income from sale of meat, freighting, etc.			
								Herders.		Owners.[1]		Apprentices.													
												Government.		Mission.		Lapps.		Herders and owners.		Total apprentices.	Total natives.	Reindeer owned.	Trained.	Being trained.	Mission.	Lapps and other whites.	Natives.	Total.
						Number.	Reindeer owned.	Number.	Reindeer.	Number.	Reindeer.	Number.	Reindeer.	Number.	Reindeer.	Number.	Reindeer.	Number.	Reindeer.									
25	Golovin, No. 1 (Mission)[3]	1896	1,393		1,255			5	375	2	138			3	125					10	638	15	4	1,200		800	1,700
26	Golovin, No. 2[3]	1908	420					8	420											8	420	10	5			800	800
27	Golsovia, No. 1	1907	1,081	4	6			3	206	9	810							2	55	14	1,071	8	2			3,000	3,000
28	Golsovia, No. 2 (Pitnuktalik)	1914	673	63				2	249	7	320							2	41	12	610	5				1,800	1,800
29	Goodnews Bay[3]	1909	1,075	524				5	468			3	83							8	551	37	1			800	800
30	Holy Cross[3]	1911	851		727			1	101					2	23					3	124	10	2	800		150	950
31	Hooper Bay	1912	633	261				1	142	6	155	3	75							10	372	25				852	852
32	Icy Cape	1908	774	8				4	561	4	112	1	23					2	70	11	766	36				666	666
33	Igloo, No. 1	1907	739	6				5	447	15	286									21	733	20				2,000	2,000
34	Igloo, No. 2	1912	839					3	407	5	432									8	839	[4] 24				[4] 1,200	[4] 1,200
35	Igloo, No. 3	1914	370					1	86	3	284									4	370	6	4			[4] 800	[4] 800
36	Igloo, No. 4	1915	433					1	54	7	379									8	433	18	6			[4] 1,000	[4] 1,000
37	Iglotalik, No. 1[3]	1910	1,182					4	975	7	109							5	98	16	1,182	15				2,000	2,000
38	Iglotalik, No. 2 (Bonanza)[3]	1913	494					2	197	8	263							1	34	11	494	12				2,400	2,400
39	Iliamna, No. 1 (North)	1905	214					3	205	1	9									4	214	12				[4] 800	[4] 800
40	Iliamna No. 2 (South)	1913	290					4	290											4	290	11				[4] 800	[4] 800
41	Kinak	1910	420	306				1	78	3	18	3	18							7	114	20				[4] 800	[4] 800
42	Kivalina No. 1 (South River)	1905	834	30				4	361	13	333							3	110	20	804	48	11			[4] 1,600	[4] 1,600
43	Kivalina No. 2 (North River)	1908	1,157					4	948	15	170							2	39	21	1,157	28	4			[4] 2,200	[4] 2,200
44	Kivalina No. 3	1915	222							13	123							3	99	16	222	9	1			[4] 800	[4] 800
45	Kivalina No. 4	1915	205					1	118	8	46							3	41	12	205	5				[4] 800	[4] 800
46	Koglung	1909	200					4	200											4	200	7				[4] 400	[4] 400
47	Kotzebue No. 1	1901	1,373		472			6	538	25	260							3	103	3	34	901	18		[4] 700		[4] 3,000	[4] 3,700
48	Kotzebue No. 2	1910	1,136					3	310	6	735							4	91	4	23	1,136	37	3			[4] 1,800	[4] 1,800
49	Kotzebue No. 3 (Lapps and Lomen Bros.)[3]	1915	3,264			6	3,210			1	54									1	54	35			3,000	50	3,050
50	Kulukak	1912	320	24				4	279			1	17							1	296	15				300	300

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51	Metlakahtla [3]	1914	10	10																						
52	Mountain Village [3]	1908	1,242	492				3	223	15	287	6	240						6	24	750	25				1,200	1,200
53	Noatak	1910	989	16				4	353	37	596							1	24	1	42	973	50	1			343	343
54	Nome [3]	1913	943	231	17			8	623			2	12					3	60	5	13	695	20	1			1,000	1,000
55	Point Hope [3]	1908	559	30				3	297	11	168	2	64							2	16	529	20	2			800	800
56	Selawik	1909	909	100				7	476	34	285	2	48							2	43	809	32	5			1,902	1,902
57	Shaktolik	1907	1,739	23				8	1,038	22	624	3	54							3	33	1,716	30	4			5,233	5,233
58	Shishmaref No. 1	1905	439	45				2	263	7	112	1	19							1	10	394	11				528	528
59	Shishmaref No. 2	1909	580					3	533	1	29							1	18	1	5	580	10				[4] 500	[4] 500
60	Shishmaref No. 3	1910	541					2	380	4	128							1	33	1	7	541	16				637	637
61	Shishmaref No. 4	1915	541					2	368	3	123							2	50	2	7	541	17				711	711
62	Shishmaref No. 5 (Keok) [3]	1915	1,767					7	1,673	6	24							2	70	2	15	1,767	30				2,500	2,500
63	Shungnak	1907	615	55				5	288	22	248	2	24							2	29	560	4	8			[4] 1,200	[4] 1,200
64	Sinuk	1907	635		207	1	139	2	168	18	82			2	39					2	22	289	16	5		5	641	646
65	Spruce Creek [3]	1912	437					3	233	9	204										12	437	15	3			800	800
66	Teller	1892	1,523	3	562			7	313	42	536			3	109					3	53	958	[4] 22		459		1,384	1,843
67	Togiak	1911	380	156				1	64	3	108	31	52							3	7	224	14	7			250	250
68	Tununak [3]	1910	510					2	300	4	174							2	36	2	8	510	20				800	800
69	Ugashik	1910	702	287				5	415												5	415	16	10			[4] 400	[4] 403
70	Unalakleet No. 1 (North River)	1897	1,193		280			4	613	15	250			2	50					2	21	913			15		1,208	1,220
71	Unalakleet No. 2 (South River) [3]	1911	1,550			4	1,550																20			3,000		3,003
72	Wainwright	1907	1,431	65				11	856	40	401	5	109							5	56	1,366	101	6			3,183	3,180
73	Wales No. 1 (Mission) [3]	1894	1,985		1,590			6	305					3	90					3	9	395	24		1,000		800	1,800
74	Wales No. 2 (Ootennas) [3]	1911	2,208					7	1,625	18	487							3	96	3	28	2,208	25				1,500	1,500
75	Wales No. 3 (Kozuks)	1908	593					5	288	22	264							1	41	1	28	593	22	10			[4] 1,000	[4] 1,000
76	Wales No. 4 (Cape York)	1914	312		3			3	237	16	72										19	309	10	1			[4] 600	[4] 600
	Total		70,243	3,408	6,890	23	13,262	277	29,455	709	13,470	46	1,029	26	686	3	38	79	2,007	154	1,140	46,683	1,618	156	4,774	14,155	81,997	100,926

[1] By purchase or inheritance.
[2] Included in total.
[3] No reports received; all figures estimated.
[4] Estimated.

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Increase in reindeer service from 1907 to 1915.

	1907	1915		1907	1915
Total natives owning reindeer	114	1,140	Sled reindeer:		
Herders and owners	57	986	Trained	445	1,618
			Partly trained	77	156
Government apprentices	17	46	Income of natives from reindeer	$7,783	$81,947
Mission apprentices	28	26	Total income from reindeer	$9,563	$100,926
Apprentices of Lapps and other whites	7	3	Percentage of reindeer owned by—		
Herders' and owners' apprentices	27	79	Government	23	5
			Missions	22	10
Total apprentices	79	154	Lapps and other whites	14	19
			Natives	41	66
Reindeer owned by natives	6,406	46,683			

Number of reindeer belonging to each class of owners in 1914–15.

Owners.	Number of reindeer.		Increase.		Per cent owned.	
	1914	1915	Number.	Per cent.	1914	1915
Government	4,113	3,408	705	17	7	5
Missions	5,924	6,890	966	16	10	10
Lapps and other whites	10,007	13,262	3,255	33	17	19
Natives	37,828	46,683	8,855	23	66	66
Total	57,872	70,243	12,371	21	.....	.....

Annual increase and decrease of reindeer.

Years.	Balance from previous year.	Fawns surviving.	Imported from Siberia.	Killed for food and skins.	Total in herd June 30.	Per cent of annual increase.	
						By fawns.	Net (since importation ceased).
1892	.....	.....	171	28	143	.....	.....
1893	143	79	124	23	323	55	.....
1894	323	145	120	96	492	45	.....
1895	492	276	123	148	743	56	.....
1896	743	357	.....	100	1,000	48	.....
1897	1,000	466	.....	[1] 334	1,132	46	.....
1898	1,132	625	161	185	1,733	55	.....
1899	1,733	638	322	299	2,394	37	.....
1900	2,394	756	29	487	2,692	32	.....
1901	2,692	1,110	200	538	3,464	41	.....
1902	3,464	1,654	30	353	4,795	48	.....
1903	4,795	1,877	.....	390	6,282	39	31
1904	6,282	2,284	.....	377	8,189	36	30
1905	8,189	2,978	.....	926	10,241	36	25
1906	10,241	3,717	.....	1,130	12,828	36	25
1907	12,828	4,519	.....	1,508	15,839	35	23
1908 [2]	15,839	5,416	.....	1,933	19,322	34	21
1909 [2]	19,322	6,437	.....	2,844	22,915	33	18
1910 [2]	22,915	7,239	.....	2,829	27,325	32	19
1911 [2]	27,325	9,496	.....	3,192	33,629	35	23
1912 [2]	33,629	11,254	.....	6,407	38,476	33	14
1913 [2]	38,476	13,681	.....	4,891	47,266	35	23
1914 [2]	47,266	16,866	.....	6,260	57,872	36	22
1915 [2]	57,872	21,022	.....	8,651	70,243	36	21
Total	.....	112,892	1,280	43,929	.....	[3] 40	[3] 23

[1] 246 killed in Barrow relief expedition.
[2] Some of the figures which make up these totals are estimated.
[3] Average.

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A. UNITED STATES PUBLIC SCHOOL, METLAKATLA, IN SOUTHEASTERN ALASKA.

B. ONE OF THE ROOMS IN THE METLAKATLA SCHOOL.

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A. METLAKATLA.

B. UNITED STATES PUBLIC SCHOOL, HYDABURG, IN SOUTHEASTERN ALASKA.

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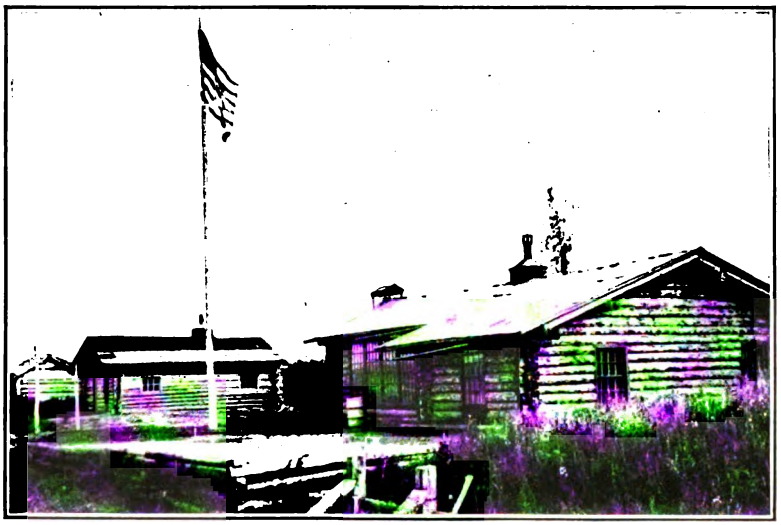

A. UNITED STATES PUBLIC SCHOOL, SHAGELUK, ON A TRIBUTARY OF THE YUKON RIVER.

B. UNITED STATES PUBLIC SCHOOL, WAINWRIGHT, ON THE SHORE OF THE ARCTIC OCEAN.

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A. GAMES IN AN ESKIMO SCHOOL.

B. UNITED STATES PUBLIC SCHOOL, KIVALINA.

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Amounts appropriated, growth, and results of introduction of reindeer into Alaska.

	First 10 years (1893–1902).	Next 5 years (1903–1907).	Last 8 years (1908–1915).	Total.
Appropriations	$133,000	$99,000	$75,000	$307,000
Number of herds established	9	7	60	76
Number of natives becoming owners of reindeer	68	56	1,016	1,140
Average cost to Government per owner	$1,956	$1,768	$73	$269
Number of reindeer passing into native ownership	2,841	3,565	40,277	46,683
Valuation of same	$71,025	$89,125	$1,006,925	$1,167,075
Income received by natives	$4,500	$15,500	$359,407	$379,407
Number of Government reindeer at end of period	2,247	4,684	3,408	3,408
Valuation of same	$56,175	$117,100	$85,200	$85,200

Wealth produced by introduction of reindeer in Alaska.

Valuation of 46,683 reindeer owned by natives in 1915, at $25 each	$1,167,075
Total income of natives from reindeer, 1893–1915	379,407
Valuation of 23,560 reindeer owned by missions, Laplanders and other whites, and Government, 1915	589,000
Total income of missions and Laplanders and other whites from reindeer, 1893–1915	107,361
Total valuation and income	2,242,843
Total Government appropriations, 1893–1915	307,000
Gain (621 per cent)	1,935,843

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PART II.—DETAILED REPORTS.

SECTION 1.—REPORTS BY SUPERINTENDENTS.

REPORT OF WALTER C. SHIELDS, SUPERINTENDENT OF SCHOOLS IN THE NORTHWESTERN DISTRICT.

Inspection.—During the year I have traveled 4,080 miles while on tours of inspection in this district—2,605 by water and 1,475 by land.

The past winter was the mildest I have experienced in Alaska. The temperature on my trip was lower than 30° below zero only at one period, that being during the reindeer fair at Igloo. My deerskin clothes were worn only a few times, instead of most of the time as during other years. However, while the extreme cold was lacking, there was an unusual amount of snow over this part of the country. While I wore heavy furs but seldom, I had to wear snowshoes much more than during any previous winter. I used dogs for 175 miles. However, for 95 miles I was on the dog car which operates on the railroad, leaving only 80 miles during the winter for which I employed dogs. I believe this is the most consistent record of travel by reindeer that I have ever made. The trails were bad day after day. The snow was always deep and usually soft. The kind of trails I had this winter are the kind that inexperienced people claim are absolutely unfit for reindeer; however, we used reindeer and had no trouble.

Owing to the courtesy of Capt. C. S. Cochran, of the U. S. S. *Bear*, I was able to do more real work than I have ever been able to do on such trips in the past. Capt. Cochran has made the *Bear* of more real service to the work of the Government in this part of Alaska than she has been for years. I wish to put myself on record as being most grateful to him, personally as well as officially, for the numerous courtesies he has extended to me and to the work of this bureau.

General remarks.—With the exception of the reindeer fairs and the reservation at Noorvik, we have instituted no new work. However, the work has progressed, owing to the painstaking work of the teachers. As the natives add to their own store of knowledge they become more difficult to manage and to help. The fact that there are several departments of the Government which touch the natives through different representatives and in different ways makes it difficult for our teachers, who have to live right with the natives, and who can not take a certain course of action and then leave the village, as do the representatives of other departments. It is part of the duty of our teachers to interpret the general laws to the natives. This side of a teacher's work is difficult and often brings upon him the antagonism of the natives in his own village, who consider that the enforcement of a particular law is the teacher's doing. In addition to the regular school and village work, our teachers have had the great responsibility of the reindeer industry at their several stations. The importance and responsibility of this work can not be stated too strongly.

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In addition to their regular work, some of the teachers in this district made winter trips, all of which were more or less difficult. It is part of a superintendent's duties to meet the risks and the discomforts of winter trips, and he is therefore expected to be more or less prepared for that work. Such is not the case with a teacher. Mr. Van Valin, teacher at Wainwright, went to Icy Cape to inspect the school building and other property there. Mr. Ansley, teacher at Noatak, walked from a point near Cape Kruzenstern to Noatak and back, and then to Kivalina and back. As a result of the trip he was taken sick with inflammatory rheumatism and was seriously ill for several weeks He and his wife had already traveled from Noatak to Kruzenstern with their people, to be with them during the seal hunt. Dr. Nichols traveled all through the Kotzebue Sound country, up to Shungnak, Selawik, and Noatak to inspect the villages. Mr. Charles Replogle, teacher at Deering, traveled 300 miles. from Deering to Igloo and return, to attend the reindeer fair.

Conditions among the natives during the year.—The prices for furs dropped about 40 per cent as a result of the war, and to make matters worse, it was a bad year for furs, comparatively few being taken. The price of staple articles of food was also higher than before. As a result of this condition, the natives who depend largely upon their fur catch had an extremely hard winter. This was not marked at places like Igloo, Deering, and Wales, where the people have come to depend largely upon the sale of their surplus reindeer, but in the Kotzebue Sound region the situation was extremely difficult.

Our teachers are called upon continually for aid for destitute natives. In most cases aid should not be given, as it is our policy to give such aid only in cases of sickness, for infants, or in cases where there is no man in the family. It has been our policy in all cases where a native had native food to live on to give him no supplies unless he or his family was sick. One of the continual criticisms we have to meet is that we do not help the natives. It seems impossible to make some people understand that it is the pride of our service that we have never done anything to make our Alaskan natives dependents. I am convinced that this is the only right position to take for the proper development of our Alaskan natives, but I also realize that it is easy for me to state that policy, but difficult for the teachers in the villages to follow it. Day after day the natives may come into the school building and watch the teacher's family eat, while they themselves have no flour at home. It is hard for the teacher to stick to our policy under such circumstances.

Reservations.—The most important advance work done during the year was the securing of the reservation at Noorvik and the plans for moving the Deering Village to that place. This means that natives who lived on the coast where they had neither fuel nor building material are to be moved to a timbered country. It also means that we are beginning to reserve suitable sections for the use of the natives alone. We have also applied for a reservation on Norton Bay, and it is the plan to move the Golovin village to that place.

Medical work.—The natives are of considerable importance in developing the country. Except in the scattered mining sections, the natives are the only instruments that the Government can use to develop this part of Alaska. The natives are the only people that can make most of this country productive, either by fishing, trapping, or reindeer raising. Why then should we let the natives suffer from disease and thus impair their productivity? This does not touch on the more sentimental reason for saving the natives. Two doctors have been under regular appointment in this district: Dr. Nichols, at Kotzebue, and Dr. Neuman, at Nome. At least two more doctors should be under appoint-

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ment in this district. One should be at Barrow, and one should be assigned to general duty and should travel over the country.

Enforcement of law and department regulations.—The native has learned that the Government is, after all, a rather complex institution. He knows that the Government gives him a school, a teacher, and the reindeer, and that a superintendent visits his village during the year. In addition there is a commissioner who sends the marshal after him when he breaks a law, and there is the big court and the big judge at Nome. Then in addition there are customhouse officials, and inspectors, and license collectors. Of all these different representatives of the big Government, he looks to the teachers and superintendent as his friends, and regards the others as rather dangerous persons. It is therefore the duty of the teachers and superintendent to explain to him that all of these different officials and the different laws that they enforce are all to be obeyed and regarded as friendly. This is extremely hard to do at times, and the failure to explain the reasons for the actions of these officials and their enforcement of the different laws means that the natives' regard for the Government will be lessened. Through our service the native has been taught that the Government's only relation with him is to help him.

The reindeer service.—In this district there are 38,841 deer, in 45 herds. Of this number, 31,396 belong to 834 natives, 801 belong to the Government, 3,005 to six mission stations, and 3,639 belong to Laplanders and the Lomen Co.

It is becoming increasingly difficult for us to maintain the proper supervision of the reindeer work and the general native work without increasing the number of our field workers, especially as the work along both lines is becoming greater each year.

During the winter my average day's travel, deducting five days when the distance was less than 10 miles on account of reaching destination, was 28 miles a day. The trails were unusually heavy, and much of the time our deer were in deep snow. I never had any trouble even when the snow was up to the shoulders of the deer. The trip from Kotzebue, to Selawik, Candle, and Council was all made through deep snow.

I believe that all of the men in our service in this district are now sled-deer enthusiasts, and none of them, with the exception of the Wainright teacher, owned dog teams last year. This is not by any means the case of the other men working for the uplift of the natives, viz, the missionaries, all of whom maintain dog teams for use in traveling. They do this in spite of the fact that by using reindeer they would save money for their missions, encourage the natives to use reindeer, thus enabling them to use as food for themselves the fish which they now give to their dogs.

There has been no special disease among the herds this year. However, there is no doubt that the deer are subject to several diseases. The "cysts" are often in evidence, but I have seldom seen enough of them to warrant condemning the meat if it was beef. Eleven cysts condemn a beef, I believe. The livers are almost always the only place infected. I believe that much of the trouble reported with the feet and hoofs is due to careless handling in willow corrals.

The matter of the proper number of bulls for each herd was thoroughly discussed at the last fair, and several of the herders decided to establish an experimental ratio for their own herds. Next year we shall have reports upon the results of these experiments.

The Eskimo herders have become more interested in making careful selection of their bulls for breeding purposes. As a result of considerable talk on this subject, I am pleased to report that Tautuk, chief herder of Nome herd, reports that this year's fawns are larger and longer legged than ever before, owing to the fact that a year ago he castrated all except the best bulls.

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An attempt was made at Buckland to get wild caribou into the herd, and they almost succeeded, but the caribou fawns were a little old and ran away from the reindeer herd. Undoubtedly we shall have to fence in a part of the caribou range in southwest Alaska and attempt to capture caribou in large numbers. I hope that this will be done some time.

I recommend that, as the number of Government deer in this district is so small and the appropriation so small, it would be best for us to plan to give up the apprentice system in this district just as soon as proper plans can be made for using the Government deer for the establishment of an experimental herd. The number of deer left would furnish a fairly good working herd for that purpose.

The Lomen Co. still keeps its herd near Kotzebue Sound, and it is cared for by Lapps. This company has, I understand, taken over the deer purchased from the Golovin Mission by Mr. Lindeberg, which will increase their herd by about 900. The growth of this company by the absorption of this mission herd is the only development of interest that has occurred in the company's affairs during the year, to my knowledge.

I repeat my statement in last year's report, that I believe that the entrance of white men into the reindeer industry must result in harm to the native owners, for whom all the work of establishing the industry was done.

The first annual reindeer fair was held at Igloo in January. These fairs were planned by Mr. Lopp some years ago, but this is the first one that has been held in this district. It was a great success; greater by far than can be indicated in a report. Its influence has put the industry years ahead, I believe, and awakened all the native herders. It is the greatest influence for advancement that this bureau has instituted in this district within my experience, and it will work wonders among the reindeer owners as well as all the other natives. As the result of the fair the reindeer men are now more closely united and will from now on form a sort of brotherhood that will go far to weld the entire Eskimo population together. The natives have learned what splendid results can be accomplished by organized effort, and that they can accomplish such things themselves.

Each native who owns reindeer now holds his head a little higher because the man who has no deer is "all the same as nothing at the fair." The technique of the industry has been given a great boost by the awakening of interest in all things connected with it. For example, the natives know who won the first prize with the lasso, who could break a sled deer best, etc. And they all want to improve along those lines. Each herd had considered its own men proficient enough in all matters. They found at the fair that there were others who were better. The use of sled deer was given a great impetus. New methods of butchering, of breaking sled deer, of harnessing, and of making halters and sleds have been introduced. A "reindeer institute" has been established where all the best men meet and discuss matters of interest.

My circular letters in regard to the proposition of the Pacific Cold Storage Co. to ship meat out on a commission basis have been filed. The only reindeer that were received by this company in answer to this proposition were those from the Teller Mission herd and about 90 from the herd purchased at Golovin by Mr. Lindeberg. The Wales herders put off driving their deer in the winter and failed to cut out the steers in time to start in the summer. The Lomen herd at Kotzebue made two attempts to get across to Nome, one in winter and one in summer, and both failed. They are supposed to come this winter.

The time is almost at hand when the rights to grazing grounds will be of vast importance to the natives. I trust that the grounds marked off on my map may

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be reserved for the natives or else that the department will state and file the record that the rights of the natives to those grounds are recognized.

I believe that to meet the situation the most important work must be done here on the ground. We must weld the native owners together closely as a race. If they appreciate the importance of the industry for themselves, they can be made to hold together for their own good. This work we will do mainly through the fairs. The other thing to be done should be done by the bureau. We must know where we stand in relation to the rights to use the public land for grazing. No mission, Lapp, or company should be allowed to file on any grazing grounds until the application is first referred to the Bureau of Education. The natives' herds should be given right to use the public land now in use by them for grazing purposes, or the department should have all the reindeer grounds set aside for that purpose by Executive order.

REPORT OF GEORGE E. BOULTER, SUPERINTENDENT OF SCHOOLS IN THE UPPER YUKON DISTRICT.

The distance along the Yukon River between the two extremes of this district—that from Eagle to Louden—is about 760 miles. All the schools have been visited by me at least once during the past year, certain schools having been visited several times.

In addition to the five villages in which schools were maintained by the Government, the missionaries conducted schools in six other villages, namely, those at Stevens Village, Allachaket, Nenana, Chena, Salchaket, and Tanana Crossing. Notwithstanding the fact, therefore, of there being 11 school centers in this district, there is a large number of natives who are not reached, owing to their living in small and isolated groups.

The villages of lesser importance where there are no schools but which contain many children are those at Tolovana, Minto, Old Station, Chandlar, Christians Village (Black River), Ketchumstock, Tetlin, and Mansfield. At all these villages, however, the natives are very nomadic in their habits and but rarely occupy their respective villages more than from two to three months in each year. Under such conditions it would not be an easy matter to reach these people and to efficiently maintain schools on their behalf.

The natives of Ketchumstock, Mansfield, and Tetlin have frequently expressed their desire for a school. They have intimated their willingness to erect a log school building at their own expense, provided the Government would furnish windows, hardware, etc. These natives are situated in a region difficult of access. Probably the best route to these villages would be overland from Eagle. The greater part of two summers and one winter would be consumed in planning, freighting materials for, and erecting a school building. Were supplies to be shipped from Seattle to Eagle during the summer, the said supplies would have to be freighted about 120 miles over the trail during the following winter (it would not be possible to freight the supplies during the summer months except by pack horses at a prohibitive cost) and the building completed the following summer. Thus, were we to ship supplies from Seattle in sufficient time to reach Eagle during the open season of 1916, the school in the aforesaid region could be ready for occupancy by September, 1917. Should our funds permit, I would suggest that we maintain a school in this hitherto neglected region.

The natives in the interior have hitherto been careful not to live together in large settlements, as the big game and fur-bearing animals in the neighborhood

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of any one such settlement are not sufficiently numerous to support other than a limited number of people. Many of them, therefore, prefer to settle in small groups, so that each group may be undisturbed by others in its hunting and trapping. There are, for instance, along the stretch of river between Tanana and Louden—a distance of about 165 miles—about 200 natives who are divided up into nine or ten different groups. The said groups consist of those at Old Station, Grant Creek, Mouse Point, Kokrines, Willow Point, Ruby (near), Lewis Landing, and several other places where there are but one or two families. The conditions in many other parts of this district are similar to those just described. There are approximately from 30 to 40 different groups of natives in this district, separated not only by long distances but by various dialects.

Attendance.—The school attendance, owing to the limited number of natives in the various communities, also to their migratory habits, has been somewhat small. The adults when on their hunting and trapping trips invariably take their children with them. It would often be a difficult matter for the parents to leave their children in the school villages on account of their usually having no one to look after them. It is pleasing to report that when the children are in the village there is seldom any difficulty in getting them to attend school. They are for the most part fond of school and rarely absent themselves unless they are given work to do by their parents, such as splitting wood, carrying water, etc. The attitude of the parents in the matter of their children attending school has somewhat improved. The parents formerly took little or no notice of the fact of their children occasionally playing truant. In cases where certain children have shown a tendency to play truant, the parents have occasionally visited the school during the daily session to see if their children were present.

Although the compulsory attendance law passed by the Territorial Legislature some years ago was afterwards found to be inoperative, yet the fear of the law impressed upon the natives at that time is still ever present with them. The problem of attendance is not so much getting the children in the village to school as it is the unsatisfactory long absences of the children from the village. It would be quite difficult therefore to frame a law that would, with justice, meet these conditions. The natives earn the greater part of their living away from the village, which more often than not is merely a place of headquarters for them and a place in which to do their trading. One can hardly blame the parents for taking their children on the hunting trips, as the children are more or less useful to them and it is necessary that they be taught to hunt at as early an age as possible. The children, moreover, enjoy the free life and, with the knowledge that later on they will have to earn their living by means of the hunt, are anxious to accompany their parents and frequently absent themselves from school for the purpose of doing so.

Many of the villages at certain seasons of the year are temporarily abandoned by the natives when they repair to their hunting and trapping grounds. At Tanana during the greater part of April and May the native village was entirely deserted. The natives had scattered and were camping at various places along the Yukon and elsewhere. The majority of them were camping at Fish Lake, 15 miles from Tanana. The teacher at Tanana suggested to me the advisability of her proceeding to Fish Lake for the purpose of holding school where she could be assured of at least a dozen pupils. I agreed that she should go inasmuch as there were no children remaining at Tanana. School was successfully held in a tent, and thus our average attendance did not materially suffer.

The problem of the discouraging attendance at our schools has not yet been solved and never will be until in some manner the scattered natives are brought

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together into common settlements. Some means might then be devised whereby the children could remain at the villages in the care of guardians—possibly in a dormitory attached to the schoolhouse, while their parents were out in the hills.

Means of support of natives.—The natives derive their chief means of support from hunting, trapping, and fishing. This district is, on the whole, fairly well stocked with moose and caribou. The best hunting ground in the interior is that in the Ketchumstock region, where, at certain seasons of the year, it is not uncommon to see bands of caribou consisting of probably a hundred thousand making their way across the country. The Koyukuk region is not well stocked with big game, but in normal seasons there is enough to satisfy the needs of the limited number of natives in that part of the country.

In regard to the numerous statements that have been made that the big game of the interior is rapidly becoming exterminated, I would say that this is not so. The natives now have no more difficulty in procuring all the moose and caribou they need than they had 10 years ago. Fur-bearing animals also are as numerous as they formerly were. For two or three years previous to the outbreak of the European war many natives were realizing as much as $2,000 a year from the sale of fur skins and live fur-bearing animals. From $800 to $1,000 has been paid the natives for a single live black fox and equally high prices for other live animals. Since the war has been in progress these prices have been reduced to less than one-third of what they formerly were. Should the war in Europe be prolonged for another year or so, the fur-bearing animals up here will still further be increased, as many trappers both white and native are not trapping to any appreciable extent, owing to the prevailing low state of the fur market. Thus will the fur-bearing animals increase and multiply, in consequence of which the trapping industry should later on be quite as good if not better than formerly.

The fishing along the Yukon and Tanana Rivers is invariably good, although there are certain seasons from inexplicable causes when the run is unsatisfactory. Salmon fishing is the chief occupation of both men and women during the summer months. These fish, when smoked and dried, are kept by the natives for use during the following winter, partly as dog feed, also as food for themselves. At the end of each fishing season the natives invariably sell a large quantity of fish to the stores for the purpose of paying their debts and in order to obtain some ready money. The said fish, however, such is the want of forethought on the part of the natives, is in nearly all instances bought again by them at a later date and at a price higher than that at which they previously sold it.

Many of the native men work on the steamboats during the summer months, which occupation affords them a means of acquiring several hundred dollars each. The native women make moccasins and do bead work, which usually finds a ready sale. The natives, therefore, have no difficulty in making a living, provided they are in good health and that the state of the market is a normal one.

Moral conditions.—The moral conditions among the natives are not good. The class of white people with whom the majority of the natives come into contact are those whose morals are of a low standard, and as a consequence, the natives, striving to emulate the white man in all that he does, easily and willingly fall into his vicious and immoral ways.

The natives consume much whisky and will go to extreme lengths to obtain it. There is not so much real drunkenness among them as there is steady drinking. Although there is a severe penalty for white men convicted of selling liquor to

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the natives, yet there are large numbers of men engaged in this nefarious business for the sake of the huge profit attached to it. While there are several convictions each year, the ranks broken by those sent to prison are soon filled by other men who, until they are caught, profitably ply the same trade.

The custom of potlatching is a very harmful one, as the said custom is invariably attended by much drinking and always a deal of gambling. Probably the worst feature in connection with these festivals is the custom of giving presents. Men will often give what they can ill afford and will deny to their wives and children the necessaries of life for the purpose of contributing presents to commemorate persons long since dead. During the potlatch at Koskaket last winter, where several hundred natives were gathered together, it is estimated that presents to the value of from eight to nine thousand dollars were given by the natives to each other. The presents, which were purchased locally at the usual high prices, consisted of rifles, shotguns, blankets, phonographs, etc. Koskaket contains about 14 cabins and some tents into which at the time of the potlatch the three to four hundred natives congregated. It need hardly be said that, under such congested conditions, the hygienic state of the cabins was extremely bad. Two deaths occurred as a result of the potlatch. One case was that of a man who died as he was journeying to the potlatch; the other death was that of a young child who evidently caught a chill owing to the variation in temperature from an overheated cabin to that of the outside air.

There is a potlatch at least once a year in nearly every village of importance. At the end of each potlatch the natives, having given away practically all they possess, are more or less without means. It is then that they often obtain a grubstake from the stores to enable them to go trapping. The whole tribe then repair to the hills—men, women, and children—and as a consequence, the villages are deserted and our schools are temporarily without scholars.

Industrial and settlement work.—In consequence of all the teachers in this district being women, more time has been spent upon sewing than upon any other branch of industrial work. The specimens of sewing, together with other articles, which I have lately forwarded to the Seattle office for proposed exhibition at the San Francisco fair, would indicate the really good work that has been accomplished. The girls have been taught how to cut out and make simple dresses, aprons, etc., and at certain schools some of the articles thus made have been worn by the children during school hours. The boys also have been taught how to use the needle and have done some creditable work. The generous supply of calico, thread, and other material furnished by the bureau has enabled us to teach much sewing which otherwise could not have been taught. The children after leaving school make good use at home of what they have learned at school. Sewing machines are in every village; in certain villages there is a machine in every cabin.

We have maintained cooking classes at several of our schools. The classes, however, have been limited in their attendance, owing to their having been held in the teachers' living quarters. The girls are fond of kitchen work and succeed fairly well at it. Considerable instruction in cooking has been given by our teachers in the cabins of the natives, which is perhaps a more practical way of teaching, as the instruction thus given is based on conditions as they actually exist among the natives. Many of the native women can make good yeast bread and often do so when they do not consider the making of it too much trouble.

Carpentry, while it has not been taught extensively in the school room, has been given some attention in the villages. At several of our schools we have

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a workbench, which the boys and men have been encouraged to use. Most of the men can build log cabins, birch-bark canoes, boats, and sleds. Certain natives show considerable skill in carpentry, notably that of sled making. They can at all times, should they be sufficiently painstaking, make a better sled than can white men. The sleds made by white men are usually heavy and rigid, while those of Indian make are light and have a tendency to spring. The boys at school have been taught how to use the various tools furnished by the bureau, such as the square, plane, level, etc., and the instruction thus given will doubtless benefit them later.

The school gardens, especially those at Eagle and Tanana, have been quite successful. At Eagle we have our school grounds well under cultivation, in which are being grown potatoes, turnips, radishes, cabbages, lettuce, etc. There are also six gardens in the village which the natives themselves have planted. With the constant aid and encouragement of the teacher, all the gardens are doing well. At the end of the season we will have from 500 to 600 cabbages and about 2½ tons of potatoes. The extent of ground under cultivation on behalf of the natives at Eagle amounts to approximately 2½ acres. The natives have taken unusual interest in the gardens, and it is wholly due to the thoroughness and enthusiasm of our teacher that at Eagle we have one of the best gardens along the river.

It has not always been easy to get the natives interested in garden work. They appreciate the garden produce at the end of each season, but are reluctant to take much active part in the preliminary work at the beginning of the season. It has to be admitted that the work is often quite hard, as much of the ground up here, even in the summer time, is frozen to within 1 foot or 18 inches from the surface. In villages where there are no schools there are few if any native gardens, as the natives at these places seldom have anyone to instruct them in garden matters.

The sanitary conditions at all the villages in our school centers are fairly good. Outside of these centers, however, they are far from what they should be, as the natives seldom have anyone to encourage them in the matter of cleaning up their villages, neither do they seem to understand the necessity for its being done. Nearly all the cabins in our school villages are washed and scrubbed once a week, but it is a difficult matter to keep them clean, as so many unsuitable things are brought into the cabins, such as dogfish and other objectionable matter. Many of the natives, moreover, allow some of their dogs to sleep in the cabins. We have tried to discourage this practice as much as possible, as we have every reason to believe that much infection is carried through the villages by means of diseased dogs. Nearly all the cabins are badly ventilated, as the windows are fixtures; that is to say, they do not open and were never intended to. The personal cleanliness of the younger generation of natives has much improved. In regard to the old natives, it is a hopeless task to try to get them to take any pride in their personal cleanliness. With the younger generation, however, it is different. For many years most of the children in our schools have been given a weekly bath, and the spirit of cleanliness thus instilled into them while at school has remained with them after they have grown up, which has resulted in their being neater and cleaner in their personal appearance than are certain other natives who have not had the advantages of school training. On the whole, village conditions in such places where we have schools are fairly good, considering the adverse conditions with which the teachers have to cope.

Health conditions.—At Eagle and Circle there has been much sickness during the past year. Tuberculosis, scrofula, and some skin trouble have given the

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teachers at these places much anxiety and hard work. When certain diseases at Eagle have been beyond the knowledge and control of our teacher, medical assistance has been rendered by the sergeant of the Army Medical Corps, who is stationed 3 miles away. The mission doctor at Fort Yukon visited Circle during the past winter and rendered some assistance.

The bureau had no physician in this district during the past year. Until such a time as we can have a hospital of our own, I do not think we specially need a doctor. At Fort Yukon there is a mission doctor, and it is possible that one will be sent to Tanana in the near future. At both Fort Yukon and Tanana the mission people are building large hospitals which when completed will each have cost from $15,000 to $20,000. In each hospital there is already a trained nurse in attendance.

The other villages in this district are hardly large enough to justify the bureau in sending a doctor to take up his headquarters in any one of them. As for a traveling physician, it is open to question whether the sick natives receive any material benefit from the necessarily rapid and unsatisfactory treatment given by such a doctor, since he is not with his patients long enough to determine the value of his work; neither is he in a position to know whether during his absence his instructions and method of cure are being carried out.

Recommendations.—In view of the large number of natives not being reached, owing to their migratory habits, and to the fact of their living in many small and isolated groups, it might be well to set aside some reservations in addition to the one located and staked last winter at Koskaket. It would be well to bear in mind, however, that the mere fact of setting aside a tract of land for the special use of the natives would not in itself be a means of inducing them to live upon it. The natives do not care to live wholly apart from white people unless they be given an incentive for so doing. At the present time they find a local market for their furs among the white people, who also are the means of furnishing the natives with their supplies. In setting aside reservations, therefore, the Government would have to be prepared to spend money upon them to the end that they be made sufficiently attractive for the natives to voluntarily settle thereon. Were schools and cooperative stores to be maintained, such advantages would be readily seen and appreciated by the natives, who would then have an incentive for building their homes upon the suggested reservations.

At one of the more central of the proposed reservations we should have a detention hospital, similar to the one in use for white people at Fairbanks. There are many natives suffering from infectious diseases who should be isolated, as by the nature of their diseases they are a source of danger to the community in which they live.

A "home" for distressed natives, upon one of the reservations, might well be considered by the Government. It would seem that some provision should be made on behalf of the natives in cases of helpless old age, poverty, blindness, and other afflictions. In view of there being a home for indigent white people at Sitka, it would indicate that those responsible are prepared to look after the distressed whites, but that little cognizance is taken of the wretched condition of the lame, blind, and aged sick natives.

REPORT OF DR. H. O. SCHALEBEN, SUPERINTENDENT OF SCHOOLS IN THE SOUTHWESTERN DISTRICT.

In this district the natives are slowly adapting themselves to the changed conditions to which they have so suddenly been subjected. The influence of the Bureau of Education in helping them make this change is quite apparent.

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To the casual observer the bureau's help in many sections of the country is inappreciable, but those who live close to the natives or have made a study of them see that the bureau's work is effective and far-reaching. Some of our staunchest supporters are old traders who have spent much of their lives in Alaska and realize the change that has been wrought since the Government has established schools and made it a business to look after the interests of the natives. Needless to say much remains to be done, and many and various are the schemes advanced by Alaskans for the betterment of the natives and the improvement of our service.

The natives of the southern coast have always been and still are dependent upon the salmon fisheries for a livelihood. Up to a very short time ago a condition of lawlessness existed at the canneries which beggars description. This condition has recently changed to a great extent by the appointment of competent men to the positions under the Department of Justice, and the consequent strict enforcement of law. However, law can not protect the amicable and tractable Eskimo of southwestern Alaska from the scum of San Francisco's Chinatown which the canneries ship up here. From this influx of orientals the natives are reaping their harvest of syphilis, diseased, sterile women, and premature death.

Reservations are needed for the Alaska natives, not to keep the natives in but to keep undesirables out. Nothing short of reservations can protect the natives from the evils of the canneries. The reservations at Tyonek and in the Prince William Sound sections are examples in this district of the good effects of this policy. At both places the canneries are supplying the natives with nets and buying their fish, because of the exclusive fishing rights which have been gained through the establishment of the reservations.

The work in the schools is progressing as usual. The attendance continues up to the usual standard, and the teachers without exception are rendering good service. I think I can without exaggeration say that the teachers in this district are of a high standard of efficiency and that all are devoted to their work. Considering the low salaries paid in this service, the standard of efficiency is indeed high.

Inasmuch as the advancement of the natives depends largely upon the solution of their economic problems, and the natives in this district are by geographical distribution and tribal differences divided into five groups living under different economic conditions, these groups are considered separately in the following statement: (1) The Eskimo of the Bristol Bay section, the Alaska Peninsula, and Kodiak Island; (2) the Aleuts, from Sanak and Belkofski to Attu; (3) the Athabaskans of Cooks Inlet; (4) the Eskimo of Prince William Sound; (5) the Athabaskans of the Copper River Valley.

Eskimos of the Bristol Bay section, the Alaska Peninsula, and Kodiak Island.—This is by far the largest group in this district, comprising about 33 villages, with populations ranging from 25 to 150 or more. Those on the northeastern shore of Bristol Bay, on Togiak River, and Kulukah Bay are extremely primitive, and depend entirely upon hunting and fishing for their livelihood. They have decided nomadic tendencies and spend much of their time away from their main villages. For that reason the attendance is poor at the schools during the spring and fall months, at which times the hunting is good. These people have not yet acquired any degree of civilization, and therefore meager results are to be expected for some time from the bureau's recently established work among them. Fortunately, two of the reindeer herds are located in this section, which will greatly augment the work of the schools; the Eskimo in his most primitive state takes readily to the reindeer work.

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Sanitary conditions among these primitive people are very bad, and tuberculosis is prevalent to an alarming extent. During the winter they live in overcrowded igloos with little or no ventilation. The houses are never cleaned, dirt floors are common, and spitting on the floor is the prevailing habit. Unfortunately the mode of living can not be speedily changed among these people, since there is no timber for new houses, the country being barren. They would build new houses if in some way they could be supplied with lumber.

The remainder of the Eskimos of this group, from Nushagak to Kodiak Island, are all well above the semicivilized stage, many of them enjoying comfortable homes and having an ample supply of imported as well as native foods. A majority of them earn their livelihood by working for the canneries. Those of the younger generation speak English well and are well advanced in school work. The schools of Chogiung, Kogiung, Ugashik, Chignik, and Akhiok are of inestimable value to these southern Eskimos, because they have advanced to that point where they can make good use of a common-school education in their commercial relations with the whites.

Health conditions have been extremely bad. Not only is there a large percentage of tuberculosis among them, but also much syphilis, which has wrought havoc with them for years and has undermined the health of entire communities. These conditions have perceptibly improved since the establishment of the Government schools and the hospital at Nushagak. However, it will require years of careful treatment and sanitary surveillance to eradicate the syphilis and counteract its evil effects.

These deplorable health conditions are largely due to mingling with the orientals at the canneries, who quite recently openly sold the worst whisky imaginable to the natives, debauching the native women at will. This condition has greatly improved in recent years, but in spite of the efforts of the officials of the Department of Justice and others interested it is still in existence.

More schools are needed in this section. Naknek, Port Moller, Perry, and Karluk should have schools. The reindeer industry should be extended down the peninsula, and to Kodiak Island, if sufficient pasturage can be found. The medical work should be extended to embrace the outlying villages tributary to Bristol Bay, and hospital facilities should be established for the south shore of the peninsula and Kodiak Island. The Department of Justice should employ more deputy marshals in this section during the summer.

The Aleuts.—The Aleuts are unfortunate in that their resources of valuable sea animals have been entirely exhausted. Their problem is primarily that of economic improvement. With the exception of the coaling of revenue cutters at Unalaska, there is no work to be had on the Aleutian Islands. Some of the natives of Unalaska have during the last two summers been employed by the cannery at Port Moller. This employment has lasted only six weeks, but at that it has been of great help to them.

The majority of the Aleuts are compelled to live off the meager remaining resources, which consist mainly of salmon and cod, and a few foxes. The sale of foxskins is the only source of income to the natives of the outlying villages. The income from this source is indeed small; especially when they are compelled to sell the skins to the traders, who for years bought the furs from the Aleuts at their own prices.

Since the establishment of the cooperative store at Atka and competitive stores at Attu and Unalaska, very much higher prices have been paid for the furs. The native cooperative store at Atka has compelled the independent trader to pay a high price for the furs during this last winter, in spite of the depression in the fur market; he also has to sell his goods at a very close

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margin in order to compete with the cooperative store. This store has in this way been a very effective agent in increasing the income of the Atka natives.

One industry which could be easily managed by the natives is the raising of blue foxes on islands. Unfortunately the best islands for this purpose have already been taken up by white men. There may be other islands suitable for the fox business, but those taken by the white men are the best, because they are low-lying and have long sloping beaches covered with extensive beds of shellfish, which are always available, since these beaches are never covered with ice. About the only care a fox island like that needs is watching; it is not necessary to feed the foxes, as they live on the shellfish.

The work of the schools at Atka and Unalaska can not be praised too highly; these schools have been a great help in breaking up a form of peonage to which the natives were long subjected.

Health conditions on these islands will not greatly improve until the living conditions improve. These people want better houses, and they will have them as soon as they can afford to buy lumber. More and a better variety of food is needed for a better resistance against disease. Tuberculosis is the main scourge, and should be eradicated by isolation.

The Athabaskans of Cooks Inlet.—This group comprises the natives of the villages of Seldovia, Kenai, Tyonek, Susitna, Knik, and Matanuska. The villages of Iliamna and Noondalting also belong to this group. These people have long lived in close contact with white men and have therefore adopted much of the white man's mode of living. A majority of them depend largely upon work in the fisheries for a living. Although they were originally an inland people, they have long lived on the shores of the inlet and have depended much upon the sea for their livelihood. Through close contact with the whites and the orientals at the canneries, they have contracted diseases and acquired their vices and have consequently degenerated physically and also morally. In fact, these people are suffering from a too-close contact with the whites, and the problem of improving them lies in protecting them from unprincipled white men and orientals, commercially as well as morally.

We have so far failed to protect the natives from this element in this section; it seems that adequate protection can not be given them without the establishment of reservations for them, from which undesirables can be excluded. It is to be hoped that the present experiment of a reserve at Tyonek will prove a success. From the fisheries of this reservation an income sufficient to support its present population can be expected; however, if the population is to be increased it will be necessary to extend the reservation to include more fishing rights. This matter will be taken up after the fishing season, when the present income of the reservation can better be estimated.

Tyonek should have a sawmill; the reservation is well timbered, and lumber could be cut for commercial purposes as well as for new houses which they need very much.

The Eskimos of Prince William Sound.—These natives live in five villages on the borders of Prince William Sound, as follows: Chenega, on the island of the same name lying between Knight Island and Kenai Peninsula; Kiniklik, near Port Wells; Tatitlek, near Ellamar; Hawkins Island Village, on the island by the same name; and Nuchek, on Hinchinbrook Island, both at the eastern entrance to the sound.

Tatitlek is the largest and most central village of this group, to which the people of the other villages come to visit quite often. It would be an easy matter to concentrate them all at this village.

These natives have been getting contracts to furnish logs for the sawmill at Valdez, on which they have realized good wages. Perhaps a sawmill of their

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own would be of considerable help to them, provided that the lumber could be marketed. A large amount would be needed for new houses of which they are in need.

The sanitary and also the health conditions of this village are improving. The problem of keeping the village clean is very difficult because the houses are crowded together so closely. During the last year I have made an effort to rid the village of syphilis. The method pursued has been the intravenous administration of neosalvarsan by the concentrated method repeated in a week, together with a careful administration of mercurials in the form of inunctions and protiodide in the interim. Twelve cases have been treated, of which seven were of congenital origin. Of the seven congenital cases, five have completely recovered from all symptoms, and have gained rapidly in weight and growth. All the cases treated were chronic and neglected, and the results are therefore most encouraging. I report these results because this is possibly the first time that neosalvarsan has been given intravenously on so extensive a scale in an Alaskan schoolroom; in all 22 injections were given, with no untoward results except a slight infection in 2 cases caused possibly by scratching the point of injection to relieve itching. The method is practicable where the patient can be kept under the mercurial treatment between the injections.

The village of Tatitlek shows marked improvement in every way and our results there are good.

The Athabaskans of the Copper River Valley.—These natives live in small widely-scattered camps and villages. They live almost wholly on fish and game; their income being from furs, and at times from a little work secured as guides and in doing odd jobs for the whites.

Their standard of living is low, and the sanitary and health conditions among them are bad. They live a lazy, nomadic life, spending much of their time in their tents at the various hunting and fishing camps. The depleted condition of the game and fur resources of the valley necessitates that they scatter widely in order to make a living. Under these conditions it is difficult for the teacher at Copper Center to keep in touch with them, and the attendance at the school is small and irregular. The school has, however, been a means of keeping in touch with them, and from it urgent cases of destitution have been relieved, diseases treated, and medicines issued, and in these respects the school has rendered invaluable service. It is to be hoped that these natives can by some means be grouped in the near future.

I take this opportunity to again touch on the problem of medical relief in this district. In providing medical relief it is of the greatest importance to consider the fact that hundreds of miles of water difficult to navigate separate the different sections of the district. One hospital can not serve the south shore of the Alaska Peninsula, Kodiak Island, Cooks Inlet, Prince William Sound, and the Copper River Valley, not to speak of the Aleutian Islands, with any degree of practicability and success. Only the most urgent cases reach the hospital—that is distant a long steamboat journey—yet we can not hope to have separate hospital facilities for each one of the above-enumerated sections. It would be much better to have several small hospitals than one large central institution.

In conclusion, I want again to call your attention to the alarming fact that the greatest health problem of the Alaska natives is the eradication of tuberculosis. It is of the greatest importance that means be speedily provided for the isolation of this dread disease. In dealing with the health problem it should have first consideration; little can be done toward its eradication through education alone.

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A. UNITED STATES HOSPITAL FOR NATIVES, JUNEAU.

B. SUMMER CAMP, SOUTHEASTERN ALASKA.

This outdoor life is very beneficial to natives suffering from tuberculosis.

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A. ESKIMO IGLOO, ARCTIC ALASKA, EXTERIOR.

B. ESKIMO IGLOO, INTERIOR.

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A. SECTION OF COOKING CLASS, KOTZEBUE SCHOOL, ARCTIC ALASKA.

B. SECTION OF SEWING CLASS, KOTZEBUE SCHOOL.

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A. SECTION OF CLASS IN WOODWORK. METLAKATLA SCHOOL, SOUTHEASTERN ALASKA.

B. THE CABBAGE PATCH. SCHOOL GARDEN, KLUKWAN, SOUTHEASTERN ALASKA.

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REPORT OF WILLIAM G. BEATTIE, SUPERINTENDENT OF SCHOOLS IN THE SOUTHEASTERN DISTRICT.

Thirteen schools have been in operation during the year in the southeastern district of Alaska. Twenty teachers, two nurses or teachers of sanitation, and one physician have been employed.

The whole corps of workers has been loyal and faithful in the year's service.

In the schoolroom probably greater progress than in any previous year has been made in teaching the native children English. Yet the progress has been exceedingly small in this direction and leaves much to be desired. It is impossible in the few hours in the schoolroom to teach enough English and to get it used enough to make it the medium of speech for the children and young people; the language used in the home, the store, on the street, and throughout the community is chiefly Tsimpsean, Hydah, or Thlinget. However, we are endeavoring each year to place increasing emphasis on the necessity of English in the community as well as in the schoolroom, and while growth in the use of the language is slow, we are encouraged because we can note progress. This progress is due in no small degree to the wider use of the dramatization of stories in our primary grades. After the Indian child becomes interested in one story and gets such a clear conception of the words that, while repeating them, he can demonstrate their meaning by actions, he becomes enthusiastic in grasping and demonstrating other stories in the same way. Thus by pronunciation and action he makes the words his own and is thereafter not afraid to use them. Last October I visited one school where the teacher was endeavoring to have her first and second grades dramatize a simple story. The pupils were bashful and slow to respond. I encouraged them as much as possible, and upon leaving told them that I would expect to hear this again later in the winter. In January I visited them again. When the teacher called for volunteers to dramatize not only one but three stories, every pupil was enthusiastically anxious to participate in the dramatization, and those selected surely performed their parts with credit both to themselves and their teacher.

In general progress Hydaburg has been able to make the best showing. The attendance there has been much more regular than in other schools, and the older people have been led to show more positive inclination for growth. In addition to the good work of our teachers there, the growth is due to a great extent to the absence of quarrels and clan troubles among the natives over land and houses; when these people left their lands and houses in the former villages and came to the new location, the bureau of education, with the aid of the Forestry Service, laid off the land so that each head of a family knows exactly what is his. Property rights are now administered in accordance with the laws of the United States rather than by the old customs of the natives. This has eliminated from Hydaburg property troubles that in almost every other village cause divisions and factions among the people.

In Klukwan the industrial class of boys, though small, has accomplished much. By exchanging vegetables from the school garden and by the sale of articles produced by the manual training class, the boys, under the guidance of the teacher, have purchased tools enough to have a very respectable community shop for work in wood and sheet iron. During the year a number of Yukon dog sleds have been built in the shop, and all have found ready sale. The sheet-iron, air-tight wood stove is the most satisfactory stove in use in Klukwan, and nearly all new stoves used in the village this year have been made in the shop. The gardens of this village again demonstrated that if the natives can

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be led to devote their time to vegetable growing a vegetable cannery can be made a profitable investment.

In Haines special mention should be made of the sewing-class work and cooking. Both of these were successfully carried on for a part of the year, there being not only a class from the schoolroom, but also from the mothers of the village. In Hoonah, in addition to making a number of small articles in wood, the manual-training class built a flat-bottomed skiff for the use of the school.

The general school work at Metlakahtla has shown by both attendance and progress that the Government met a vital need of that community when it established the school there. The new school building, a part of which is completed, will be occupied next autumn and will surely be greatly appreciated by both pupils and teachers after two winters spent in rooms in old store buildings and halls.

The immoral white man continues to be a menace to the native of this district. In such towns as Haines, Douglas, Juneau, Petersburg, and Ketchikan Indian women and girls are ready prey of white men, Japanese, Mexicans, Filipinos, and various Europeans, who entice their victims with money or, more often, with intoxicating liquors. Nothing but total prohibition of the liquor traffic in the Territory of Alaska will reduce to a minimum the debauchery now caused among the natives by the manufacture of native intoxicants or the traffic among these people of the white man's intoxicating liquors.

The Federal law states that the Indians are not to be disturbed in the possession of their lands. Yet in all parts of this district where the white population is on the increase Indians are being crowded from lands which they have held for generations. It is frequently the case that an Indian family has had three or four cabins in various locations where they would go to plant a small garden, to trap, or to dry fish at the various seasons of the year. During the passing of many years the natives have cleared small plats of ground. Within the past few years white homesteaders have located on many of these plats, making them each a part of a homestead. The result is that when the native goes to his camping place, or garden, he finds that it has been appropriated by a white man. During the past year an Indian brought action in the court against a white man for taking up the Indian's land and after spending more than $300 in attorneys' fees and other expenses of the case had it decided against him. He had claimed the land for a period of 40 years and more; had actually lived upon it during a certain season every year for many years until some 8 years ago, and his right to that land had always been recognized by both white and Indian until a white man came along, took up a homestead, and built a cabin near the Indian's land. Before he did this the white man had stopped with the Indian in the latter's cabin on several occasions. When the white man took up his homestead and had it recorded he included the Indian's land in the homestead and it was not until two years or more afterwards that the Indian knew that the homestead claim covered his land. There are a number of cases in this district similar in principle to this one.

I believe that every Indian village in this district should be made a reserve, as are Hydaburg, Klawock, and Klukwan, in order to keep the white men from encroaching upon their village lands.

As I said in my report of last year, there is so much jealousy existing between villages, and the customs and events of the distant past have created so much enmity between certain communities, that it is practically impossible to get two villages on the present site of either one of them. If a new location can be found where there are no clan houses, which hold many traditions, villages may be persuaded to unite, provided they can make the move at no financial loss.

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If a reimbursable fund could be secured by the bureau and we could furnish from that fund the necessary machinery for sawmill, cannery, or other industrial plant at some new location, it might then be possible to get some more villages to unite at such location. They would in a few years be able to pay back the money into the fund and own their own plant, as has been done at Hydaburg.

The Alaska Legislature at their second session the past spring passed two laws that will enable both individual natives and villages to make progress toward our Government and civilization if they so desire. These laws are (1) a law to enable an Alaskan Indian to determine his citizenship before the courts, and (2) a law to enable Indian villages to organize for self-government. I believe that the last law is the most important piece of legislation that has ever been made for the Alaska natives. It will enable them to establish councils of their own and to learn to govern themselves. They can pass any ordinance for their own village that is not in conflict with Federal or Territorial laws.

There is still much demand for the establishment of a good trades school in Alaska for the Indians. Probably 300 Alaska Indians are this year enrolled in the boarding schools in the States under the Bureau of Indian Affairs. There is scarcely a month goes by in which I am not besought by Indians to do all I can to get a trades school established in Alaska in which their older children could learn the work that it is impossible to teach in our village schools. Would it not be an excellent plan to establish such a school and permit to enter there only those pupils who had completed, say, five grades in the village schools? I believe this would be a help to our village schools also.

It is to be hoped that a hospital will be speedily built in this district, now that a medical relief appropriation has been made. The cost to the natives in the local hospitals of Juneau and Douglas is prohibitive when they have also to pay a doctor for his services. In Ketchikan a native will not be received into the hospital at any price. Some haven for natives needing hospital attention is surely much needed.

The law permits natives to take up allotments of not to exceed 160 acres. A number of natives have availed themselves of this privilege. They have staked out their claim and made application to the land office. In course of time a surveyor is sent to survey the allotment. When he arrives he finds that the native has not run his lines according to the true meridian. The surveyor's rules—those under which he works—are inexorable. He must change the lines to conform with the rules. The Indian can not understand these rules and is angered. When he finds that he can not have the land he wants, and especially when part of his shore line or water line is cut out, he doesn't want that allotment. Under the Indian customs, the Indians owned water, streams and bays, as well as land. Some of them take up their land now with a view to controlling certain water. This they find they can not do, and they do not want the land they have chosen.

SECTION 2.—REPORTS BY PHYSICIANS AND NURSES.

REPORT OF DR. L. H. FRENCH, KANAKANAK.

During this year we accommodated more hospital patients and cared for a greater number of out-patients than during the preceding year. Only the more severe cases, which could not be well cared for at home, were admitted. During

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the fiscal year 44 cases were treated in the hospital, requiring 1,232 days of hospital treatment.

The Kanakanak building, having been designed for use as a schoolhouse, is very poorly adapted for hospital purposes, and not having the proper sanitary arrangements, the work is often carried on with the greatest difficulty. Cases of all kinds, both male and female, must necessarily be kept in one room which was formerly the schoolroom, the only means of separating patients and sexes being some homemade screens. However, the present building has served its purpose admirably by way of conducting an experiment as to the utility and the necessity of a hospital at this point.

I would not deem it wise to attempt any improvement to the present building, but rather to erect a building especially designed and equipped as a hospital. The building should contain a male and a female ward and two private rooms for the necessary isolation of certain cases, also a dispensary room for the treatment of out-patients and as a receiving ward, with bath arrangements so that patients can be bathed before entering the ward. The hospital should contain two toilet rooms and baths for male and female patients. The building should also contain proper living quarters and a bath for nurses and attendants. The present building could be used as a residence for the attending physician. Proper accommodations and provision should be made in the building for maintaining and training native girls as nurses.

As physician in the Alaska medical service and acting assistant district school superintendent, I have visited all the schools, reindeer camps, and villages between Togiak on the west, Iliamna on the east, and Ugasik on the south. At Togiak the educational and sanitary work has been very difficult, very largely due to the poor dwellings of the natives. No timber being available for fuel or building purposes, the natives are compelled to live in partly underground barabaras, shelter being provided by covering a light framework of stick with straw and sod. In such a habitation cleanliness is impossible, and on account of the almost complete absence of fuel the houses are continually cold, damp, and moldy, and almost all food is eaten raw. Under such conditions the physical as well as the mental development of children is necessarily dwarfed. The schoolhouse is situated in the village at the mouth of the Togiak River. On up the river, at intervals of about 10 miles, are six other villages, the natives of which all exist in a very low state of civilization. The natural resources of Togiak Bay and River provide a bountiful supply of seals, fish, and fur-bearing animals, making this region a desirable habitat for native population. It is hardly possible that the education of the natives of Togiak will show much progress until their homes can be improved. I would recommend that a few suitable houses be built for them in such a manner that they will not be more difficult to heat than their present huts. Their barabaras, being covered with turf and being practically air-tight, require a small amount of fuel; if houses were built for them which were colder they would probably prefer the hut.

The village of Kulukak, on the west shore of Kulukak Bay, occupies a commanding and sightly position, with its waters abounding in seal, fish, and clams, while the adjacent country is well stocked with fur and game animals. But like Togiak, Kulukak is also without timber, and the people necessarily live in underground dugouts. During the spring of 1915 I was detained at Kulukak on account of an early ice break-up, and I saw what occurred every spring in their huts. Water began to ooze in from floor and sides, producing a filthy mud which rendered the huts uninhabitable, and the prevailing rains at this season made life in a tent just as bad. Stone and gravel are plentiful at Kulukak, and the best solution of this trouble that I can suggest is that a supply of

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cement and lumber for forms be sent to Kulukak for the construction of about 15 small concrete houses. These would be durable, sanitary, economically heated, easily constructed, and cheaply shipped. Each house should be about 12 by 16 feet, with a built-on vestibule and entrance end. The walls should be double, with air space, which would make them easily heated and dry. If drawings and directions for erection are sent, the houses could be built by the natives themselves under the supervision of the teacher and myself. Therefore there would be no expense for labor. The advantages and resources of Kulukak as an abode for natives are so many that there need be no fear as to the permanence of this village.

As a region for the establishment of a reservation for the natives, I know of none better adapted, or with more prospects of benefit than the one embracing Togiak and Kulukak. On the coast between Togiak and Kulukak, and on Hagemeister Island, are deposits of lignite coal, which could be utilized for fuel in this timberless country. This reservation should embrace all the territory drained by the rivers flowing into Kulukak and Togiak Bays, together with the adjacent islands. At present this territory contains no white population, nor is it commercially used in any way, and if set apart and kept from the encroachment of others than natives would provide an excellent location to deal with the native problem by the reservation method.

On account of increase in population at Kulukak, due to natural growth and development, and the location of new families from other villages, the school is now quite overcrowded. This should be overcome as soon as possible by the building of an addition, which would lengthen the schoolroom about 12 or 15 feet. The present heating arrangement would be ample for such an addition.

The school at Chogiung is making much progress, and at present the pupils use the English language exclusively while in the school or on the playground. To hear them in their recitations and to see their wonderful plays and dances is indeed an inspiration. This school has an attendance of 72, somewhat more than half being native and the rest children of mixed blood. This school also serves Kanakanak, 4 miles distant; the 10 children of that village are brought to school each morning with dog team, and after school returned in the same way. Hot lunches are served these children at noon. If accommodations for boarding school children at Chogiung school were provided, this school would become a more useful institution. Children from the villages which are out of reach of the school, as well as orphans, could then be cared for and educated. A comparison of results in education between regular day pupils and pupils who are boarded and kept from the regular native environment proves that the latter method is vastly superior. One of the teachers in this district took two native girls, aged 5 and 6, and kept them with her in her home. Neither spoke English when taken. Now, at the end of two years, they speak English as well as the average American child of the same age, and at no time do they use the native tongue. The custom of the natives of this section of making slaves of orphan children should be a sufficient reason for the establishment of boarding schools.

REPORT OF DR. J. W. REED, RUSSIAN MISSION.

Two winter trips have been made to the Kuskokwim as far south as Bethel, one trip to Hamilton on the Yukon, and on these trips all villages and fishing camps, except one on the Yukon, have been visited. While on my trip down the Yukon River, accompanied by Mr. Cochran, we visited the Akulurak mission, returned again to Mountain Village and went about 60 miles out on the tundra

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to a place where we were told no other Government official had ever been. Two summer trips have been made to Pimute, and one this June to Holy Cross, with a thorough inspection of the Catholic mission at that place, as well as treatment of inmates needing medical care.

This year I have visited 32 different villages and 6 fishing camps, traveled 1,900 miles, visited approximately 1,400 people, and treated over 620 patients, the little cuts and bruises not being counted, as well as many repeats. One major operation for approximation of the ends of an old fracture of the lower leg and an amputation of the upper third of the thigh for a severe gunshot wound have been performed, as well as an operation for drainage in a wound in the upper arm due to a rifle wound. I also made an attempt to stop a tubercular process of the hip joint of a reindeer herder, and I now have him under observation, but as yet can not tell as to permanent results. The operations were performed in the schoolroom. I was compelled to use an old workbench, of ancient and hoary appearance, for the operating table; it served quite a valuable purpose as an operating table, being the exact height and required length, and when covered with a clean sheet it did not look bad.

I have lost only three cases in my practice this year, one of Pott's disease that I saw when dying and gave it an opiate to relieve pain; another a case of chronic bronchitis, which was improving when I went down the river this spring, but must have a week later developed a broncho-pnuemonia and died before I returned. The third case was that of a child in the village, who was dying on my arrival back home with tubercular meningitis; this case, as well as the first, was beyond a physician's control.

The general health in the villages along the river has been unusually good this year, which is due not so much to the physician as to climatic conditions, and the low price of furs, which has made most of the natives get out in the fresh air and do a little hustling for a living.

On my visits to the two missions of the Roman Catholic Church, situated at Akulurak and Holy Cross, I was treated with the kindest consideration and cooperation and was given every opportunity to make a thorough investigation of each institution. I am glad to report that I found the general health of the inmates better than the average, and the sanitary conditions at both places such as to meet the approval of any reasonable medical inspection. Especially was I impressed with the fact that all of the children spoke good English even on the playgrounds. They were all clean, cheerful, and had the appearance of being well fed and well cared for.

On the tundra, at Chowaktaligamute, I found a trader who has taken quite an interest in having good, clean houses in the village. We found him very much interested in having the physician make regular visits, as well as having a school placed at his village. When we wished to pay him for his team that we had been using, he cut the price in half, remarking, that we were there for the good of his people, and he wanted to help that much. This action being the reverse of all other treatment that I have received along that line, has quite a pleasant place in my remembrances of the visit.

At Kagatmute, 20 miles farther on the tundra, we found 19 inhabitants, comprising 7 families, and 18 cases of tuberculosis; one of the children was apparently free of it and was the only inhabitant of the village not tubercular. Another child, only 5 or 6 years old, will be laid away in only a few years at the best. Around the village we counted over 20 graves that have been made in recent years, and many of them seem to be those of children. These people lived in igloos, and there are only one or two stoves in the villlage; their houses were damp and filthy to the extreme. When we made comment to the natives who

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were with us about the filth, we were informed that this village was in excellent condition compared to those on the tundra nearer the coast. The only comment that I care to make on this condition is that I regret that I saw what I did, and I hope that it will never be my lot to see such conditions again, unless I am armed with the means of relieving them.

Mrs. Reed, in all of my operations, as well as in the village work while I was away, has been compelled to take the place of a second physician rather than that of a nurse.

I would respectfully suggest the following as a permanent policy for this section of the country: A small hospital well equipped to accommodate not more than 15 patients or less than 8, with office, laboratory, drug room, dining room, kitchen, bathroom, nurses' room, operating room, sun room, several closets, and a cellar. Several well-built cabins with glass on two sides, with plain furniture and with inside finishing so that a hot solution of any antiseptic could be sprayed all over the room. These cabins should be large enough to accommodate one and some of them two patients who are tubercular. A physician's home should be built near to the hospital and cabins, and it should be large enough, as well as comfortable, so that a family could feel a little of home life. A trained nurse should be permanently stationed at the hospital and in the tubercular camp, subject to the physician in charge; an interpreter, who could also act as dog musher and handy man when at the village, should be on salary all of the year round. The physician should have a small launch for summer travel and at least two good dog teams during the winter, kept in good trim for travel, so that he would not have to depend upon half-starved native dogs for traveling. The interpreter and the first-stage tubercular cases could put up enough fish in the summer to feed the dogs during the entire winter, as well as supply the hospital and tubercular patients with dried fish for their own use. In addition to nursing the patients, the nurse should have authority to make the inmates of the cabins keep them in good order. The physician should be on the trail in winter and on the river during the summer at least half of the time and should only make short quick trips and be at call by a fresh dog team in case of emergency. The physician should also have a good lantern, so as to give lectures on sanitation in each of the villages visited. He should also have authorization for travel to enable him to cover the territory well, and he should know what amount he can spend not later than the 1st of August of each year, so as to be able to make all plans and arrangements for the winter to the best advantage.

This hospital and camp should be placed upon a reservation along the Yukon River and should be at least 10 miles square and be situated in the spruce timber. Near this camp should be established another village of nontubercular cases for the families of those in the tubercular camp and also for the young men and women who are anxious to lead a civilized life. At first the Government should furnish windows, flooring, and roofing for houses built according to a certain plan, and a contract should be drawn up with each individual head of a family to the effect that only a certain number of people should live in the house and that it should be kept clean and sanitary; that he would give at least five days each year to the village for general work; that he would make a garden and set aside each fall a certain number of fish for each of the family and a certain number of dog fish for each dog kept, and these not to be sold under any pretext. This contract should also read that continued neglect of any of these requirements would forfeit the work he has done in building the house and also his right to live on the reservation, and that the house will revert back to the local government for sale to a new family.

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On the reservation there should be a sawmill, cannery for fish, a cooperative store, a plant for preparing dried fish and salmon bellies for the local trade, an experiment station, and a small farm. The products from all of these could be sold here in the country to whites if they had the assurance of a responsible man that the food was put up under sanitary conditions. A wood yard on the reservation would net quite a revenue. When the village and plants are well established the profits should most of them go to permanent and general improvements of the village.

Over this village should be placed a man who is well qualified to make good, and he should be assured that he could retain his position as long as his service is satisfactory. He should have power to enforce the rules and law of a local town council or veto the same. If possible, the physician and teacher should be men of congenial temperament and men whose friendship has been of long standing.

The general conditions here, or better yet, 10 miles from here, are such that the above plan could be carried out well on an authorization of $7,000 for the first year, $5,000 for the second, $3,000 for the third; from then on I am convinced that $2,000 per year, not including the salaries of the workers, would keep the institution in good working condition and would give the people a chance to live better and not be subject to the whims and fancies of irresponsible traders. There is a place above here which, if staked, would contain not less than 500,000 feet of merchantable lumber, and most of it accessible to a small, portable sawmill.

I have had the opportunity to note the good work done by the schools and missions in this region. I have also seen natives, after leaving the schools and missions, go back to the old way and become worse than those around them. These young men and women are not to blame; neither are the methods of training at fault. In this country and among these native people public opinion is a great factor, so much so that a single couple either has to abide by the decisions of the village council or leave the village. Again, the inability of the native to earn a good living makes it impossible, regardless of his strength of character, to live as he would desire.

I am convinced, after a very careful study this year and a personal visit to the above-mentioned place, that if the above plans were carried out it would conserve the good work of the schools and missions in this section of the country.

The drop in furs, the high cost of food, and the fact just accomplished of one man controlling the whole supply of food for miles around, as well as his actions at present, make me shudder for these people this winter, as I am able now to see the handwriting on the wall, and I shall be powerless to prevent it, for no one can say to a man at what price he shall sell his goods or what he shall pay for goods bought.

In conclusion I wish to state that the manner of living from hand to mouth of these people would make it impossible for them to be of much assistance, except by giving labor, in carrying out this scheme. Still, I am convinced that they would cooperate very enthusiastically as soon as they were in a position to do so. This was demonstrated this spring when I asked everyone to help me clean up the village. All save one family and a white trader responded, and in a few days the whole village was cleaner than it has ever been, and the people took so much pride in it that they have, without my suggestion, kept it as clean as could be during the fishing season.

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REPORT OF DR. FRANK W. LAMB, NULATO.

On the day after my arrival in Nulato, September 22, 1914, I made a canvass of all the natives' homes, examined and made a diagnosis of all patients, and requested those that were able to come to the hospital for further observation and treatment. From the first I met with friendliness and willingness to follow my directions. For a while I was under the impression that the "medicine man" was advising the natives not to take the medicine prescribed. After careful watching, however, I found that he did not do this, but on the contrary advised the people to call me on several occasions. There have been two native women who did not take the medicine prescribed, but I am inclined to believe that they themselves were discouraged because immediate relief was not obtained. Both of these cases died, one from tuberculosis and the other from metritis following confinement.

The present site of the village is as good as can be obtained, on account of its protection from winds, but it is too crowded. The military reservation on one side and the mission on the other make it impossible for the natives to rebuild, and the consequence is that the homes are too close together and too many are living in one cabin.

The natives have agreed to provide barrels outside of their cabins in which to throw refuse and to empty them at a distance from the village. Heretofore refuse has been dumped near the doors. This spring the village was thoroughly cleaned, the water front raked, dead dogs buried, tin cans placed on the ice to go out with the break-up, chloride of lime sprinkled around cabins, refuse burned, and many of the cabins and the council hall fumigated. Old drains were cleaned and redug and several new ones dug. Upon returning from their fish camps the natives have agreed to build toilets at both ends of the village.

I have given talks to the natives in regard to stamping out tuberculosis and the care of tubercular cases, care of their homes and selves, and the feeding of infants. I have taken all babies from tubercular mothers and am having them fed from bottles. I have induced the natives to be careful about spitting on floors of homes and to use small receptacles containing an antiseptic. It is my intention, upon the return of the Indians from camp, to have one of their number appointed as health officer by the council, to be under my supervision to enforce sanitary conditions. The natives are very much enthused on this subject.

The natives have had a rather hard winter, on account of the low price of furs and wood, and most of them have been in straitened circumstances, although at potlatch they will give the last thing they have to some one that has helped them in a recent bereavement. Whenever possible, I have given work to different natives.

The water question in summer has been a difficult one, which has been solved by inducing the natives to obtain water from the Nulato River and from a spring located 4 miles up the Yukon and which has been piped to the foot of the hill. Heretofore the natives used the Yukon River water, which receives the drainage from the burying ground and the villages above.

During the winter of 1914–15 I made the following trips to treat natives: One each to Unalakleet and Dishkaket, 3 each to Louden and Kaltag, and 12 to Koyukuk. While in these places I inspected the villages, visited all native homes, gave talks on sanitation, and made recommendations. The natives of Kokrines wanted me to make a canvass of the village and treat the afflicted, but there were no funds to make the trip.

Sergt. Yeatman, Hospital Corps, United States Army, has been of great help in giving anesthetics and assisting at operations as well as looking after cases

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during my absence on official trips. On one occasion he made a trip to Koyukuk with station dogs while I was in Louden with Mr. Evans.

During the year I have performed two laparotomies, two uterine curettements, five operations for perineorrhaphy and trachelorrhaphy, and a great number of incisions of abcesses. In several cases of children I have advised to parents the removal of adenoids, and they now want them removed as soon as the fishing season is over. I am of the opinion that a great many of the enlarged glands in children are due to tonsils and adenoids, and the slight prolonged fevers in children are due to nasopharyngitis, as the result of adenoids and enlarged tonsils. One case in particular came here from Louden with glands of neck enlarged. The case would not respond to hot applications or internal treatment, but after six applications of weak iodine solution and antiseptic spray to throat the glands returned to normal.

I would recommend that the Bureau of Education ship in about 25 barrels of lime and brushes for whitewashing interior of cabins and for use around village.

In order to stamp out tuberculosis, I would recommend the segregating of all advanced tubercular cases by having a large hospital erected at some central point. If this can not be done, a building in each village should be rented where possible and all advanced cases could be placed under the supervision of bureau teacher or nurse and they to receive instructions from local physician. There should be proper ventilation of cabins. Each family should have its own cabin in order to do away with overcrowding.

REPORT OF DR. H. N. T. NICHOLS, KOTZEBUE.

During the year I have traveled a total of about 1,575 miles; 415 miles were in gasoline boats, 775 miles were by dog team, and 385 miles by reindeer. This amount of travel has enabled me to visit or pass through the Kotzebue Friends' mission reindeer camp four times, the Oksek mission five times, Noorvik Reservation once, Kiana three times, Shungnak once, Selawik once, the Kotzebue reindeer camp in the Noatak Hills once, Noatak Village twice, Noatak reindeer camp once, the Kivalina River reindeer camp once, and Kivalina once. Also, I went up the Noatak River about 40 miles from Kotzebue once during the winter to make a single call. I have treated 601 cases. Of these, 231 were of a major character, while the balance, 370 cases, were of a minor sort that could have been handled by a nurse or by a teacher experienced in the treatment of the sick and in the dispensing of medicines. Hospital treatment was received by 14 individuals for a total of 179 days.

The medical record of 419 natives has been entered on filing cards during the year. The residence of these individuals is geographically distributed as follows: Kotzebue, 189; Selawik, 56; Shungnak, 26; Kiana, 15; Oksek, 22; Noatak, 32; Kivalina, 31; and other localities, 48.

All of the teachers in the employ of the Bureau of Education from Barrow to Deering, with the single exception of Buckland, have during the year exhausted their supply of certain medicines and sent to Kotzebue for more. Such requests have, in the main, been filled, and where it depleted my supply more has been asked for and received through the office in Nome. A small supply of a few of the simpler remedies has been left with the United States marshal at Kiana for use among the natives residing in that village. The Oksek mission, on the Kobuk River, has received a few medicines also.

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During the year I have given talks to the natives 30 times; at Kotzebue 10 times, at Oksek 6 times, at Shungnak 4 times, at Selawik 5 times, at Noatak 3 times, and at Kivalina twice. In these talks an attempt was made to show the native why he needs to be more cleanly in his habits and how greater cleanliness would lessen sickness among them. Tuberculosis in its three forms, granular, osseous, and pulmonary, has been discussed at length in several villages. Emphasis was placed on the prevention of the spread of this disease through a proper care of the cases in their homes.

The great prevalence of tuberculosis was shown by a recent inspection of the Kotzebue school children. In this inspection 42 pupils were examined. Of this number, 11 were tubercular, either active or latent in their lungs. Is it an exaggeration to say that tuberculosis is epidemic among the natives of the Kotzebue Sound region?

There is danger that tuberculosis will be prevalent in the new village Noorvik, on the Kobuk River Eskimo Reservation. If the village is to be for the native what we all hope it will be, there must be provision made for the segregation of all actively tubercular individuals. This means the removal of every tuberculosis case from the family in which it occurs. A tuberculosis sanitarium adapted for cases in different stages of the disease and constructed with only such slight modifications as this northern climate demands to make it practicable would be a blessing to the new village. It would mean the prolonging of many lives through rendering the tubercular process latent for a time. It would be the saving of the lives of many incipient cases.

During the year the Friends' mission has put in improvements in their hospital, which now make the building quite usable. All but two of the windows have been made full size, and the ward has been partitioned into two rooms. This hospital, which the Government physician uses at his discretion, is a one-story frame house. A coal shed adjoins the building in the rear, and a storm entrance protects the door in front. There are four rooms within the building, but no hallway. All rooms have a 9-foot, 4-inch ceiling With this plant as a hospital nucleus, much good has been done the natives.

REPORT OF DR. D. S. NEUMAN, NOME.

The sanitary condition of the Eskimo village on the Nome sandspit has greatly improved since the storm of 1913, as the majority of the old dwellings were totally destroyed at that time, and the natives built new residences farther up on the hillside, where the incline allows good drainage. The new houses are much larger and better ventilated.

For years Nome has been a medical center for the surrounding villages, within a radius of 200 or 300 miles, and I believe more and more firmly in the necessity of establishing a hospital for our Eskimos, as the present arrangement leaves much to be desired.

For the past two years Miss Kenly, nurse for this district, did splendid work in sanitation both in the village and in the school, and was a great help in the dispensary and hospital.

The general health of the natives for the last year has been very good which was, in part, due to the steady cold weather, without thaws or spring rains, which are fertile causes of inflammatory rheumatism and severe attacks of bronchitis amongst them.

No new cases of tuberculosis have developed this year, as the infected cases were segregated in a comfortable cottage bought for that purpose by

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Mr. Johnson, assistant superintendent, or in the Holy Cross Hospital. It would be advisable to procure some more cottages, as the cost of maintaining consumptive patients in this way is less than one-quarter of the hospital charge.

REPORT OF MISS HARRIET R. KENLY, NOME.

In going over my monthly reports I find that since July 1, 1914, I have made 1,871 visits to homes, 1,305 visits to patients, and treated 1,228 patients. I have also given anæsthetics that were necessary when operations were performed by Dr. Neuman. The above is exclusive of my work during the trip which I made with Supt. Shields in January and February, 1915, when I visited 10 native settlements, with over 900 natives.

Besides the patients from the near-by settlements, such as Penny River and Cape Nome, we have treated in our dispensary patients from Shishmaref, Wales, Teller, Igloo, Sinuk, Solomon, and Safety, and sent medicines to most of these places from our supply in Nome.

During the summer months Nome is the rendezvous for many of the natives from the villages in this region. The summer of 1914 was a very busy and interesting one. From July 1 until October 1 we had between six and seven hundred natives most of the time, and, of course, among them there were always many who needed my care. Most of my patients were children. During those three months I made about 900 calls. Records were made of all births of children under 1 year from Wales, King Island, St. Lawrence Island, and Diomede. I spent a great deal of time with mothers of young babies trying to teach them the importance of keeping the children and their bottles clean: also of taking care of the eyes. I had at least 700 patients, and gave about 500 treatments.

Though we had so many natives, the sanitary conditions were fairly good, as they lived in tents. We had fine weather, very little rain, and every one could be out a great deal in the bright sun, which was so good for our tubercular cases.

By the 1st of October we had settled down to about 300 natives, and I began my class work in the school, teaching anatomy, physiology, and hygiene. I had three classes with very good attendance. All of the children, both large and small, were always interested. Many talks have been given to mothers and fathers in their homes on the prevention of diseases by attention to cleanliness and ventilation. With the older school children to interpret, they always listen attentively, but I do not feel that they always understand, for we have many cases of eczema among the children because of uncleanliness.

How to care for our tubercular patients continues to be our most serious problem. Most of our hospital cases suffer from this disease. Certainly our deaths are nearly all from this cause.

We have succeeded in getting most of the tubercular patients to use sputum cups; we have hung one of the prevention of tuberculosis cards on the wall in each cabin, and we do everything possible to encourage ventilation.

Sanitary conditions are better just now than at any time since I came to Nome. We have had very fine weather during the past spring, and many families have cleaned up their homes and will keep their windows and doors open some of the time.

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REPORT OF MRS. LOUISE M. NICHOLS, KOTZEBUE.

During the past winter in our village, as in all villages where trapping and the sale of skins has been any considerable part of the native income, the natives have been very poor. Our natives caught very few skins and were not paid very much for them. While the winter was a very hard one, I believe it has not been without its value to the Eskimos. An analysis of the native character reveals that lack of thrift and forethought is responsible for many of the ills which overtake them. The old-time custom of community ownership and sharing is partly responsible. The younger generation have partly outgrown that. The development of thrift, combined with a greater parental responsibility, seems to me one of the greatest needs of our people. If the lesson of parental responsibility can be taught and replace the outgrown one of community sharing, the Eskimos of our village will be much better off. The habit of looking ahead from summer to winter and providing the family with wood and food, and the subsequent disgrace when the lazy father had not done his part must supersede the present plan. The hard-working father now sees his stores diminished and his children hungry before spring because his sister's lazy husband brought his family in to demand the kinship share of the brother-in-law's toil. Some of the most progressive young men spend the winter up the rivers, away from school privileges for the children, because they do not want to remain in Kotzebue sharing flour and sugar and other "white man's grub" with the other villagers who have been too lazy to try to get those things for themselves. The old custom is not far enough behind so that the ones who no longer recognize its force can quite ignore it in a time of poverty when they have sufficient only for the needs of their own family. This lack of forethought and thrift is Kotzebue's greatest bar to progress.

For years the natives have been reminded each summer that wood is best procured by boat or raft while the rivers are open. Firewood and logs for the construction of houses can be thus secured with much less difficulty than by dog sled in winter. In winter they have the excuse that logs for a house can not be brought, and the amount of firewood which is brought is much too small to admit of the establishment of higher standards of cleanliness; water can then be obtained only by melting ice.

On St. Lawrence Island, where there is no fuel, the people are not to blame if they are not very clean; but Kotzebue people might have abundance of wood if they would go for it. Dr. Nichols has spoken often to the men of the health value of a good-sized woodpile, and I have urged the women to see that the men secured it, but our efforts in that direction have not met with great success.

In our women's club we have followed the same plan as that of last year. The topics discussed were about the same; and in some cases we can see that the lessons have been understood and applied.

The lessons in first aid were this year given as occasion required. I am positive that such teachings are gradually leading the people away from their old-time confidence in their own methods of cure, and are establishing a confidence in the Government workers who are trying to do medical work among them. It is constantly emphasized that this is a fact by our experiences with the transient natives who spend all or a portion of the summer near Kotzebue. Our ministrations to them are not accepted in the same spirit at all as they are by our own natives. Unless these summer natives swallow the medicine we are never sure it is used. Some of these nonresident natives have not sought aid even when very ill, and when they do seek it, they certainly lack confidence in its value.

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The boys' club work was organized in October, and weekly meetings were held all winter. We changed secretaries every month in order to give all the boys an opportunity to serve in that capacity. The formation of a girls' club was attempted, but it was not continued. The girls understood so little English that it seemed better to wait until they were a year older.

After December I had the schoolroom opened and warmed evenings for the children from 7 until 9.

It is a delight for me to spend some time with them in the evening and to have them in our home. My pleasure in them is doubled by the fact that I am *not* associated with them in the daytime. Miss Hawk did excellent work with them during school time, and it was greater than it would have been if she had had to have the children in the evenings. I feel very strongly that some of our teachers lessen their schoolroom efficiency by feeling it a duty to have the children in the evenings.

The teacher can not, in justice to herself or to her work, remain on duty with the children both daytime and evenings.

I have assisted Dr. Nichols in his medical work and have handled that work alone when he was out of town. Perhaps the preparation of meals for his patients has been as important a part of the work as any. I know that he feels that it has been so. The native diet is not such as can be relied upon to aid convalescence. I regret greatly that the poverty of the past winter has eliminated from the diet of the natives a few of the valuable articles of "white man's grub" which they had learned to use. We had several cases of illness in which the chief cause seemed to be the inability of the native children to adapt themselves exclusively to the native diet, which is so largely proteid. The lack of sugar, cereals, and milk have worked a hardship on some of the Eskimos. In illness they recuperate rapidly if they can have a mixed diet.

To my mind one of the great steps forward in the work of hygiene and sanitation among the natives has been the supplying of the paper napkins and the paper toweling for the use of the children in school. Previous to the use of these two articles many of the children were constantly in a filthy, unsightly, and unhealthy condition, due to the many colds.

In connection with the bathing the hearty response of the mothers to the request for clean clothing must be mentioned. At first none of the children had a change of clothing, but at the last it was unusual for the children not to bring clean clothes to be donned after the bath.

We have tried very hard to rid the village of vermin, but not successfully. We have less I believe than some of the other villages, according to Dr. Nichols' report of the places in which he has made an inspection. The nomadic life of the natives tends to increase this evil. The older people have no pride in the matter and no prejudice against vermin.

Interchange of thoughts, ideas, and methods seems impossible in a country where travel is so difficult. Teachers' rallies, conventions, and national associations would not be held so generally if those engaged in the teaching profession did not find them helpful and of value.

In times past I have frequently expressed myself as feeling that the teachers in the Alaska school service also need such conferences. The isolation and lack of intercourse with educated persons have, it seems to me, one of two effects upon most—not all—of the workers in the Alaska school service: Either one becomes absolutely discouraged and feels the futility of all efforts, fails to get the proper perspective upon the work, spends valuable time and energy looking for results in the immediate present, or else becomes self-satisfied and smug and imbued with the idea that his or her work is absolutely unimprovable. Would not

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some sort of a conference for which the teachers must prepare and to which they could bring their problems for discussion be of value to the native work and workers? Personally I should place the Alaska school service second to no social work I have ever attempted, if one could have some of the inspiration and practical aids which we used to find in our weekly and monthly conferences of social workers. If such a rally of the Government workers of this district could be held next summer, I should bring to it some of the following problems which I believe are of interest to us all, and which perhaps together we might hope to solve as we can not individually: 1. How best can we develop in the natives an inherent moral sense which will result in a higher sexual purity? 2. By what means can the native best be aroused to a greater care of his property and to develop thrift and economy? And so on, through a long list of matters which perplex me; matters to which I have given some thought and upon which I should like to have the benefit of the experience and thought of others, equally interested with me in the welfare of the natives.

SECTION 3.—REPORTS BY TEACHERS.

ANNUAL REPORT OF THE UNITED STATES PUBLIC SCHOOL AT WALES, ON BERING STRAIT.

By JAMES H. MAGUIRE, Teacher.

Our enthusiasm for the service has not abated after three years of continuous work with the Eskimos. While we believe the advancement will naturally come through the efforts of the younger people, nevertheless heredity is decidedly manifest, and in no case can we locate an inferior child from superior parents. There are among the older people at Wales, as well as elsewhere in the district, some magnificent types of men and women, who are as sincere and honorable as people of communities claiming greater degrees of civilization. Wales people are not as migratory as those of some other settlements, but there is more or less movement all the time, and while our maximum population has reached as high as 325 we can by including those attached to our five reindeer herds lay claim to approximately 420 natives as belonging to Wales.

School attendance.—In no case was attendance compulsory, the school equipment being taxed to its capacity. No truancy was reported, and there was very little tardiness; on the contrary, some of the children often presented themselves as early as 6 o'clock winter mornings.

School work.—In general school work, such as reading, writing, arithmetic, spelling, drawing, and composition, Wales children compare favorably with other native school children. The one main drawback to a more satisfactory advancement is the aversion to the use of the English language. It is a most serious handicap to small children to hear nothing but their native tongue used at all times by their parents; many of the parents have had school advantages and should know how difficult it was in their own case to grasp the elements of English. We endeavor to have the parents assist their little ones in their homes, and we believe that such assistance will be of great benefit to teachers as well as to the native children.

Domestic science.—This branch of school work was under the supervision of Mrs. Maguire, who had been engaged for two years in the same kind of work at Kivalina. Instruction was given in sanitation, cooking, baking, housekeeping, sewing, and knitting; 325 loaves of white bread and 197 dozen rolls were baked; rice, cereals, and other food was cooked; 12 aprons, 18 shirts, 15 dresses,

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35 artigas, 24 towels, 24 handkerchiefs, 24 pairs of mittens, 12 petticoats, and 12 baby bibs were sewed in class hours. Each new baby was furnished with two complete outfits of clothing in duplicate. The girls are very apt, and they have unlimited patience and ambition.

Shop work.—In the school shop much work was accomplished. Benches for the schoolroom and for the church were constructed, 11 new sleds were made, and numerous repairs were attended to. A large number of cooking stoves were constructed; canoes, oomiaks, and a very fine skiff were built. It is planned to put the shop in such condition that it will be used much more extensively in future.

Health.—The general health conditions have caused a very great amount of work. While there have been no contagious diseases, we have had a vast amount of blood infection, snow blindness, frostbites, colds, sore throats, rheumatism, eye affections, and three cases of syphilis. The latter responded well to the prescribed treatment. There are two cases of tuberculosis of long standing. There were 4 deaths and 12 births. The causes of death were: 1 adult, accidental gunshot wound; 1 child, 12 months old, constitutional weakness; 2 children, 15 and 18 months, pneumonia. Medical attendance was given 2,389 times, and 1,773 visits were made to homes.

Agriculture.—Nothing in the nature of agriculture has been attempted, but indications point to favorable conditions. The natural vegetation is typically Alaskan, sturdy, and of great variety, and we have seen some very fine turnips which have grown here.

Town council.—Seven representative natives were elected by the people to constitute the first town council of Wales. While there was more or less timidity on the part of the candidates and some indifference on the part of the electorate, we believe a council has proved to be an essential element for the welfare of these people. The deliberations of the council have been earnest and their adjustments fair; they take pride in regulating irregularities, and if the enforcement of the 10 o'clock curfew ordinance had been their only act, that alone would have justified their existence. But this council has regulated native dancing to reasonable proportions, effected a most thorough spring clean-up, protected the domestic water supply, ordered the chaining and proper feeding of dogs, and passed a labor ordinance whereby all male adults must contribute two days' work annually to village improvement or pay $2, or its value, to the village treasury.

Reindeer.—Five herds of reindeer center at this place, and here we have some of the largest holders of deer in Alaska. Meetings of owners and herders are frequently held, when ways and means of improvement of stock, herding, and marketing are discussed. A very large delegation was prepared to attend the annual reindeer fair at Igloo, but severe weather conditions made traveling impossible, a fact universally regretted.

Native support.—Seal and walrus hunting constitutes the principal means of support of the people of this village. Approximately 3,000 seals were taken during the year; 112 walrus and 2 small polar bears, 28 white foxes, 18 red foxes, and 10 mink were reported. Fishing is an all-year industry. Tomcod and flounders are taken through the ice in winter, and salmon, greyling, herring, trout, and smelt are seined during the summer, when the condition of the surf permits. Eider ducks and other waterfowl are taken in spring and fall, but ptarmigan have been very scarce during the year. There is considerable ivory carving, and some Wales natives are exceptional and original workers. The revenue derived from ivory carving is a considerable item of native support. The town council is taking the first steps toward the establishing of a coopera-

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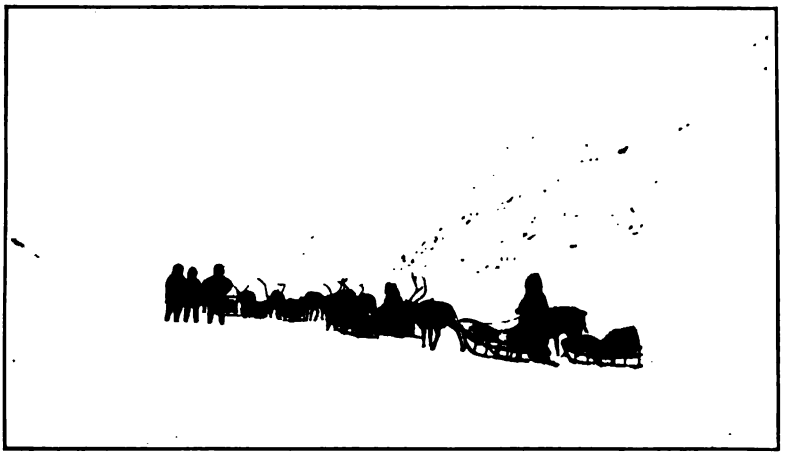

A. SUPERINTENDENT OF THE NORTHWESTERN DISTRICT TRAVELING IN WINTER.

B. ONE OF THE PHYSICIANS OF THE BUREAU OF EDUCATION ARRIVING AT AN ESKIMO VILLAGE.

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A. HERD OF REINDEER NEAR NOME.

B. REINDEER CARCASSES FOR SHIPMENT FROM NOME TO SEATTLE.

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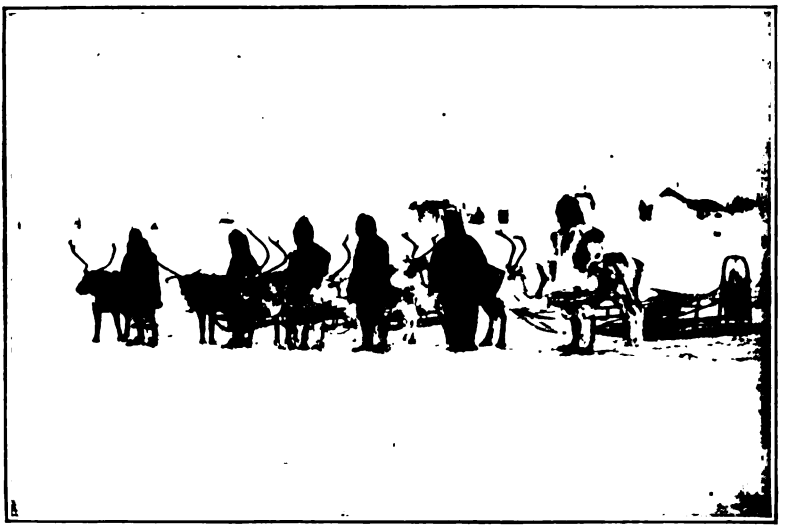

A. IGLOO FAIR. SOME OF THE DELEGATES WITH THEIR FAVORITE REINDEER AND SLEDS.

B. IGLOO FAIR. THE START OF ONE OF THE RACES.

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A. IGLOO FAIR. SHOOTING CONTEST.

B. IGLOO FAIR. MEN WHO ENTERED THE FUR CLOTHING CONTEST.

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tive store by gathering all walrus skins at a central depot, with a view to selling in bulk rather than by individual trading; each native places one skin in the first lot to be sold, another in the second, and so on. This is the councilmen's own idea of fairness, and it is hoped that the tendency of the aggressive native to corral the market will be regulated.

Mission work.—In the absence of a regular missionary, the mission work has devolved upon the teachers. Two Sunday services and a Wednesday evening service have been conducted, and have been well attended throughout the winter; in fact, the seating capacity of the church has frequently been inadequate. A church committee of seven was elected to care for the cleanliness and warmth of the building, and they have done their work very well, indeed. A very strong and well-balanced choir of 40 voices leads the musical part of the services; two interpreters are used each Sunday, and others are in training. A young people's society of 98 members is a branch of the religious work, and we are confident these people are sincere in their profession of Christianity.

Destitution.—Although Wales has numerous reindeer men, and the majority of the natives are prosperous and thrifty, there are also some very poor people; while there is very little, if any, suffering from actual want, the poor and improvident do not hesitate to borrow or beg from those whose good management and thrift have enabled them to make provision for their own families.

In a few extreme cases among the very old, aid in the form of food and clothing is absolutely necessary to prevent suffering. It is a most difficult task to segregate the worthy needy from the lazy and unworthy beggars. If teachers with experience would classify the absolute needy to the exclusion of the professional grafter, whose cache is probably rich in skins and ivory, much better results could be secured and imposition prevented. We have found from personal experience a disposition on the part of certain teachers to let new teachers profit by experience as they themselves had to do. Probably such experience is not so very bad for the new teacher, but it is certainly not the best thing for the begging type of natives, who consider new teachers to be their legitimate prey. Fortunately this type of Eskimo is rapidly becoming extinct, but not any too fast for the welfare of the younger people.

Advancement.—We take pleasure in reporting a most creditable and exceptional improvement in the manner of living, as exemplified in numerous native homes, prominently noticeable being the homes of Nagozruk, Ootenna, Keok, Adlooat, Okvayok, Engeedlook, Ibeyanna, and Puzruk. Cleanliness predominates. Food is prepared and served in appetizing form. Tub baths are taken weekly, and much of the keen native ingenuity is shown in hidden lockers for storage, various labor-saving devices, and unique cooking utensils. The pronounced benefits of schools and teaching are probably more evident at this station than elsewhere in the district, for the very good reason that right here in striking contrast to the above fine young men, some of the most backward, indifferent, and superstitious natives are also found.

Notes.—Several parties of Siberian natives have visited Wales, and they all seem curiously interested in what our Government is doing for the American Eskimo. They report that materials for Russian schools have been landed at East Cape and Serdze, but they are a little skeptical about the actual establishment of schools, as they have been promised schools all their lives.

There was only one case of intoxication reported during the fiscal year, that unfortunate being placed on probation by the district superintendent for the term of one year. He is apparently endeavoring to make good.

District Supt. Walter C. Shields and Miss Margaret Harriet Kenly, traveling nurse, visited Wales in January and were very active in inspecting school work,

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homes, and general conditions in this community. The deer camps were visited and much good resulted from those visits.

A most instructive and interesting part of Mr. Shields's visit was the manner in which he explained the object, incidents, and results of the annual reindeer fair held at Igloo, working up much enthusiasm among Wales reindeer people for the next fair, where our people will undoubtedly be well represented.

Weather.—Weather conditions were far from tempting at Cape Prince of Wales. During the entire month of December the wind blew with much force from the south, bringing a great deal of rain. After January 1, the wind blew from the north for 110 days, with an unusual amount of snow. The shore ice moved out June 5, and the first boat of the 1915 season appeared June 21, but could not make a landing on account of great quantities of drift ice. On Sunday, June 27, the same boat returned and the first mail of the summer season was received at this post office. Weather conditions at Wales do not compare favorably with conditions along the Arctic coast or anywhere else to our knowledge. Throughout the winter there was continuous open water in the Bering Strait; therefore, no communication was had between this station and the Diomede Islands or the Siberian coast.

ANNUAL REPORT OF THE UNITED STATES PUBLIC SCHOOL AT DEERING, ON KOTZEBUE SOUND, ARCTIC OCEAN.

By CHARLES REPLOGLE, Teacher.

The committee appointed by the village to investigate and decide upon a suitable location for our new village attended to its work very promptly; the entire committee left Deering early in July of 1914 and examined sites on both the Noatak and the Kobuk Rivers as far as 100 miles from the ocean. They finally selected a site on each river, with a preference for the Noatak, but left the decision to Mr. Shields, our district superintendent, who decided in favor of the Kobuk site, as the Noatak River was already provided with a school. Request was then sent to Washington for a reservation for the natives of a tract 15 miles square, which was granted. A village was laid out within the reservation, about 60 miles inland, in the midst of a beautiful belt of timber. At a vote taken in Deering this place was named Noorvik, which means "transplanted."

On returning from a visit to the site of the new village we began the delayed work on the Deering cold-storage plant, which has been completed at a cost of $500. The entire construction was done with native labor. This fully occupied the month of September, and we did not attempt to begin the school sessions until that was accomplished.

The children made more rapid progress in their studies than last year, as we understood them better and used methods more adapted to their understanding. We taught English, sanitation, hygiene, mathematics, history, and writing. Their minds can only take a limited amount of teaching at a time; they must have frequent rest.

On Christmas eve the native children had a beautiful Christmas tree and rendered an attractive program. All the white people in the village were present. The children showed much improvement over last year, both in ability and rendition. The class of gifts on the tree also had a characteristic revision. No store goods were bought, but the presents were things which it took time and labor to produce—useful things of every sort. Many presents came

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from the white people to the natives in token of the friendliness between them. The tree was furnished by Henry Coffin, a white miner, and then it was used by the white people for their entertainment, which followed on Christmas night. The natives were all present at the white people's program, which consisted of a drama, "The Christmas Box," prepared by the white people themselves. Five of the native children assisted in the Christmas night program. Many of the miners from upriver points came into town to attend the programs, but the native program was better attended by white men than the other.

Carpentry.—Not having room for shopwork at the school, Mr. D. W. Wentworth, an experienced carpenter, gave us room in his building for our carpenter's bench and blacksmith work. The space donated was 14 by 26 in the carpentry room and 16 by 16 for the blacksmith room. The natives bought some needed roofing paper from their village funds. They also bought lumber and made the needed workbenches and working outfits. This space was often taxed to its limit, as so many wished to work at the same time. The boys made 47 sleds for their own use and 8 for sale, all of which were bought by white men at $35 and $40 each. Mr. Wentworth gave constant instruction to the boys at work there, and we feel greatly indebted to him for his cooperation. In addition to the sleds a folding bed was built, also five cupboards; numerous small articles and repairs were made of which no record was kept.

Blacksmith work.—The small forge, hammer, and tongs sent have been of great use; 12 knives and 54 sled break irons were forged this year. The press drill has made 1,286 holes in sled irons and other drilling. It has been the most used tool of any.

Cooking.—It has been a problem to find the most practical method of teaching cooking. Our experience has shown that girls who learn to cook in the school have very little initiative in their home life, and soon drop into the regular Eskimo habits after leaving school. So we have taken the married women and given them the instruction, and have required them to practice it at home; the result is that the mothers now teach the girls, and boys as well, until a real demand is now coming from the men of the village to whom we have given lessons in bread making and pastry baking.

Sewing.—Twelve girls have been under instruction and have produced 20 dresses, 10 aprons, 6 underskirts with waists, 8 jackets for babies, and many pairs of mittens knit outside of school hours. Other outside work done under instruction have been 4 reindeer harness, 7 boys' khaki suits, 2 quilts pieced and finished, and 9 needle books.

This year the girls have made many baskets and trays from the native grasses, for the first time departing from the Eskimo patterns and choosing more modern designs obtained from magazines.

Many patterns have been cut and fur coats made, instead of the old-fashioned parka. Much work and many lessons were given outside of school hours.

Laundry.—The laundry work of the village was a vexing problem. The same old story—no wood; and in winter water sufficient only for drinking purposes. Even soap is at a premium. Some ironing was done. A few families own an iron in common, which is passed around among them. Some well-made shirts are appearing, and a necktie is occasionally worn, so that ironing is needed. We need a public laundry and need it badly. The school has furnished fuel and soap to 14 families for laundry purposes during the year.

Gardening.—The schoolhouse garden last year produced excellent lettuce, saved from the cold winds, the mice, and the birds; some heads measured 10 inches across, weighed 2 pounds, and were sweet to the last leaf. Onions and kale did

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well, but turnips, potatoes, and cabbage did very poorly, as the temperature is too low, so near the Arctic Ocean.

Mining.—Much mining is being done in this vicinity, and 14 Eskimo men from this village have been engaged in it for wages; 6 others have done freighting for white miners. So far no native of this village is directly interested in any mining proposition.

Personal cleanliness.—Marked improvement is everywhere manifest this year. Our commissioner of sanitation reports that bathing is much more indulged in than ever before. The washing of underclothes has become a practice with almost all of the people who wear underclothes. Their houses are much cleaner than before. Inspection by the health officer has stirred up many a woman who was careless in her housekeeping. All houses were fumigated twice this year and ventilators were installed where needed. The health officer has also attended to the matter of the insanitary dog, and that nuisance is minimized. All garbage is hauled far out on the ice, and the spring breaking up of the ice disposes of it without our further work.

General sanitation.—Teaching on this subject has been given daily in the school. Many of the people in the village have attended that class only, and much more care is exercised than ever before in the selection of foods and of their drinking water. No decayed salmon was used for food this year.

Means of support.—The reindeer is the natives' stand-by. Yet the future of this greatest of blessings continues to be a problem; ways and means must be provided by which the native of this region can market his surplus deer and secure such supplies as his new life demands. Local demand for reindeer meat is not great enough to be of much benefit, and the problem of satisfactorily curing the meat is not solved. Our cold-storage cellar has solved some difficulties; meat kept in an open house through the winter and placed in the cold-storage cellar while yet frozen hard will keep through the summer. We corned some meat and will see how long it will keep. The storage plan has helped to do away with the trouble of one native supplying the entire market, to the exclusion of other men in his own herd. Fish is an important item in their support. With a large number of dogs to be fed, the fish supply is a very important factor. Seal are plentiful at certain seasons, particularly in the early spring and in the fall; but the people travel 60 to 80 miles for them. The seal furnishes the fat they require and the skins are used in making footwear.

Freighting.—This year seven men have received $384 for freighting and carrying passengers; the amount received about paid for the food required by the dog teams used for the purpose during the winter months. The average cost of feeding one dog for one year is $21. The sled deer is coming more into use, and as soon as we can introduce a light-wheeled vehicle that can be drawn by reindeer in the summer time the dog will slowly be supplanted.

Hunting.—This year there has been an abundance of rabbits. Wild fowl have been scarce, with a poor market for them, the Emperor goose selling at 50 cents and the sand-hill crane at from 75 cents to $1. Less than 75 fox skins were taken this season by the entire village; the average price realized has been $4 for white and $3.50 for red fox skins. Dried fish sells at 4 and 5 cents per pound. With fox skins so scarce and sugar selling at 12 cents and other things on the same scale, the Eskimos have had to practice economy. However, there was less suffering than during the preceding year.

Medical department.—This has been a most important department of our work. There have been four deaths. The general health of the village is receiving much more attention from the people themselves than before and more attention is paid to the care of the children. Bad water this spring

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caused much bowel trouble. I find that liquid medicines produce the desired results in most cases more readily than the tablets and with smaller doses.

Law enforcement.—The commission form of government as adopted by the village has met with deserved success and it is very enthusiastically sustained. There have been but two cases of lawbreaking, and these were remanded to the village judge, his decision was accepted, and the offenders gracefully submitted to their fines. Considerable drunkenness has occurred among the white men and the native women who have married white men. The commissioners have had complete control of all the affairs in the village and their work is commendable. They give their services without compensation. Moral conditions are good and more modesty is noticeable.

The reindeer fair at Igloo.—It was not until the fair that the people began to comprehend the greatness of the possibilities of the reindeer business. Until then enough reindeer to feed and clothe a man and his family was the limit of his hopes; beyond that he could not see, but now he begins to see the future value of the herd.

The most noticeable thing about the fair was the fraternal spirit. It was in the air even when the thermometer registered 46° below zero; it was in the faces and the voices of everyone. Men who, when at home, had felt a slight superiority came up against men from other places who were quite their equals. Cordiality was abundant and the general tone of fairness was plainly visible. There were more new ideas afloat than were to be expected among a people hampered by hundreds of years of life in the old-time ruts. The men came to get something and were not disappointed. Our men carried home valuable information on proper methods of slaughtering. No more deer are slaughtered in the old way. We have adopted the method shown at the fair. Ideas of harness, of types of sleds, proper care of deer, and relative number of males and females, ideas of the strength and endurance of certain types of sled deer—all called out the keenest investigation and are new lines of experiment for the men.

But the greatest result was the federation of the whole reindeer business so as to conserve the reindeer for the greatest good to the most people. The fair has been talked over very often, and we are sending a delegate to visit all the reindeer men north of us, inviting them to meet us in Noorvik in March, 1916, to further the interests of the business. Our men have discovered that they are not the most efficient men in the business, nor even the equals of others in some parts of the work; nevertheless they were able to carry home some of the many prizes from the Igloo Fair and they are justly proud of them.

Suggestions.—A tannery in which the skins taken from the beef deer could be made into leather and manufactured into articles of commerce would be a valuable addition to the enterprise. Skins taken at slaughtering time are useless except for heavy sleeping bags, and for them the market is very limited indeed. The hair is then too long for any other use, but if tanned the skins could be made into mittens, gloves, and coats.

Steps should be taken to establish a Government agricultural experiment station at Noorvik, as the location is central and is adapted for the purpose.

The Government should put a public laundry and a number of baths in the Noorvik school building and let the village meet the cost of maintenance; this would be of untold educational value.

There should be a special course of studies given in this school that would prepare the ambitious native boy or girl for teaching in the Alaska schools.

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ANNUAL REPORT OF THE UNITED STATES PUBLIC SCHOOL AT SHUNGNAK, ON THE KOBUK RIVER, WITHIN THE ARCTIC CIRCLE.

By FRED M. SICKLER, Teacher.

During the month of July, 1914, I was at Shungnak, engaged in gardening, giving the natives advice on all their affairs, preparing the annual reindeer reports, visiting the reindeer camp, dispensing medicine, and conducting various weekly meetings for the benefit of the natives. On July 24 I left for Kotzebue to confer with Supt. Shields, to attend to the disembarking and forwarding of the Shungnak goods, and incidentally to find a dentist, as I suffered from time to time from severe toothache. I arrived in Kotzebue within a week, and was welcomed by a number of our natives, who were engaged in trading, and also by the Point Hope and Kivalina natives who were glad to see their former teacher. Mr. Shields arrived early in August, and the freight was discharged about the same time, but it was several weeks before a suitable boat was ready to leave for Shungnak.

The month of September was spent in rendering the residence habitable. The repairs consisted of calking the building with moss, gunny sacks, and clay, of relaying the floor, of papering the walls, and of repairs to the windows, doors, chimneys, stairs, and storm sheds. The building was not completed for the lack of building materials, but proved quite comfortable during the winter.

The repairs to the cabin were watched by the natives, and now nearly all the houses are plastered with clay from the clay beds that I discovered. The native cabins were so cold in winter that it was customary for several families to move into one cabin in order to use less fuel. Some cabins had been plastered with lake mud, and others with mixtures of ashes, salt, and silt, but these plasters soon fell off. I asked concerning clay deposits, but the natives knew of none less than 30 miles distant. I began to look for a deposit nearer the school, and was fortunate in finding clay beds, covering several acres, about 1 mile from the village. I have tested this clay and found it well suited for the manufacture of bricks. White men have hauled this clay several miles to their homes, and say that their cabins have been rendered much warmer this winter. The United States commissioner took a quantity of this clay to Kiana to plaster his house, and the Midnight Sun Packing Co. shipped a quantity to Kotzebue to line the oil furnaces of the cannery. That so many people have benefited by my discovery causes me no little satisfaction.

School work.—At the opening of school, I found a large number of pupils to be young men who would soon be called upon to assist in trapping, and of young girls who would be shortly called upon to gather wood, and to help in hauling fish, looking after snares, and the other duties that fall on the older girls when the trapping season opens and the village is practically deserted by the men and youths. Then the women must do all the housework, mind the young children and babies, do the chores, and provide the home with wood and small game. I devoted the most of my attention the first two months to these older pupils. After the older pupils left, I was able to devote nearly the whole of my time to the young children, of whom there were a number who could not read or write. The older children came from time to time, when they were not occupied, but they were treated more as visitors than regular pupils. The young people were seldom absent from singing lessons as they greatly enjoyed music. I confined the studies in the fall to the most practical kinds, and reserved the more attractive work for the spring, when the children become tired of work that requires considerable concentration of attention. The youngest children were taught largely by monitors, a system that they enjoy and which proves as

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instructive to the monitors as to the pupils. The large children were taught reading and interpreting the lesson into Eskimo, very simple and practical arithmetic, writing diaries, penmanship, and drawing. An hour and a half were devoted to industrial work, which consisted in sewing and making of baskets and fish nets. After the close of school the children were encouraged to make gardens, and were given informal instructions in the planting and caring for food plants. The work in sewing consisted of a progressive series of lessons as outlined in Kirkman's Sewing Practice, after which each child was allowed to make a garment for himself, and one or more for the younger children.

Agriculture.—Little attempt was made to teach agriculture as class work in the schoolroom. I have enlarged the school garden from year to year until it now covers nearly all the school premises. I plant a large variety of vegetables and am constantly experimenting with new seeds which I obtain from the Department of Agriculture and at my own expense from seed houses. I endeavor to grow enough turnip seed and seed potatoes to supply the natives. This year I received requests for seeds from Kiana, Oxik, and Kotzebue, places over 100 miles distant. While I have made a number of shipments to these places, I have not been able to fill all the orders, but hope to be able to grow seed for all who may ask for it next season. I read carefully the Alaska Experimental Station bulletins and am a subscriber to the Farmers Bulletins and other papers on gardening that are sold by the Superintendent of Documents, Washington, D. C. This spring I made a south room serve for a hothouse in the following manner: I made a rack 5 by 9 feet in front of a double window. I bored holes in a number of shallow boxes, filled them with earth, and placed them upon the frame. I began planting the 12th of April. By the 12th of May my boxes were overcrowded with young plants; so I made a cold frame on the roof of a south storm shed and transferred my surplus plants to the frame. In this manner I was able to supply myself and some of the natives with fine cabbage and other plants. The cabbages at the present writing are forming fine heads and still have two months to grow in. I have hopes of persuading the natives to build a hothouse to be used in starting all their plants. I started my potatoes indoors this year and the plants bloomed earlier than ever before. As the amount of land in the village is limited and hard to clear, I have several experimental gardens about 1 mile from the school in order to show the natives that there is abundant room for gardens outside the village. This year I have conducted a number of experiments with high-grade commercial fertilizers in order to determine if these may be used profitably in this region. That the natives can supply themselves with vegetables without a great deal of labor is apparent from the yield of the school garden last fall: 1,000 pounds of turnips, rutabagas, kohlrabies, beets, and carrots, 400 pounds of potatoes, besides cabbage, radishes, lettuce, kale, and other plants. The potatoes and turnips were kept in an ordinary cellar and required only the heat from a small lamp to keep them from freezing. All roots keep without much trouble from sorting and 95 per cent are in good condition at the time of planting the next spring. The natives are apt to regard a small school garden as child's play or as the means of obtaining an occasional relish or as an attempt to force civilization upon them, but they need no argument when they see the teacher working a garden for himself and in this way supplying himself with a regular article of food. Nor can the natives be expected to weed and care for his garden if he perceives that the teacher is content to praise gardening and the value of plants as foodstuffs and yet takes no further interest in the matter beyond planting a model plat which is soon grown up in weeds while the teacher is spending his time elsewhere in other occupations. We have a number of natives who have large, well-kept gardens and raise all

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the turnips and potatoes they need. The example of these progressive natives is sure to be followed by the others who have small gardens, but are learning the value of them.

Cleanliness.—In order to encourage cleanliness, we daily appointed pupils to act as inspectors, and these examined the ears, necks, hands, arms, and faces of all the school children. We also asked for a report once a week from each pupil concerning his weekly bath. By these means we were able to keep the children fairly clean, but it was a much harder task to secure the wearing of clean and neat clothes, as these depend on the parents' prosperity and mode of living, while to keep the children free from the ever-present louse is the most difficult problem of all. The use of so many articles of skin clothing, the raising of puppies in the house, and the indifference of the older natives make the house independent of our efforts. All the native families, with one exception, live in cabins which are larger than those found in neighboring villages. They are well supplied with stoves, heaters, beds, trunks, and sewing machines, and some have tables and chairs. The standards of housekeeping range from very clean to very dirty. Those natives who remain in the village all summer rake up their yards and burn the trash, but they refuse to clean up the premises of those who spend their summers elsewhere.

Industry.—In an industrial way the natives have shown great improvement in the building of sleds and boats. At present the building of a seagoing schooner is contemplated. One large cabin was built this winter and another one is under construction. Three native companies are successfully operating placer mines. Native trading is confined to the bartering of cross fox and reindeer skins for seal oil and like native wares. The natives who formerly held regular trading posts are helplessly in debt. They are unable to do any considerable amount of business without supervision. Pride, hospitality, extravagance, and the inability to understand market fluctuations, interest, and contracts place them at the mercy of their white competitors. In their collection of debts the natives are far less successful than white traders, and this disadvantage is in itself a serious one. However, I am in favor of native cooperative stores, under the supervision of officers of the Bureau of Education.

Game and fur.—The low price of fur on account of the European war and the loss of wages due to the abandonment of local placer mines have greatly disheartened the natives. The fall catch of whitefish, due to high water and a late freeze-up, was very light. Before fish traps and long seines were used at Kotzebue the natives often had on hand dried salmon that was three years old. For the past two years there has not been a year's supply on hand at any time. The ptarmigan and grouse, which have been very plentiful for a number of years, migrated to other regions and only returned in small numbers. Rabbits were plentiful at a distance of about 30 miles from the school, but in the neighborhood of the village they were extremely scarce. The natives killed a number of black bear, sheep, and caribou, and were fairly well supplied with meat and skins for clothing. A large number of young men and several families did not attempt to trap, but left for the Koyukuk to work for the white miners and to sell native wares.

Health.—During this year, quite a few deaths have occurred among the children, due in part to the sudden change from a diet largely of imported (white man's) food to a pure native diet of tainted meat, fish, and berries, and in part to the infections brought by other children from the lower Yukon. The sick children complain of those symptoms which indicate rickets, infantile paralysis, anemia, and incipient tuberculosis. I am confident that the greater part of the cases, if not all, could have resulted in recoveries to health had the children been supplied with proper nursing and food.

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Honesty.—As a whole these people are quite honest, but occasionally I have thefts reported to me. Various people have missed articles from their caches, and there have been articles taken from the barter goods of the school by persons who have been permitted to enter the store loft to examine the goods or to leave some of their personal effects or on similar pretense. There are a number of young boys in the village who are crazy for tobacco, and the natives seem to agree that these boys will steal to get articles that can be traded for tobacco. I have never had stolen any of my personal belongings, but I have found children stealing from the sewing supplies. I punished the culprits so severely that I believe this practice has been discontinued. Since that time a number of articles have returned in a mysterious manner. The natives are becoming less prompt in the payment of debts, and verbal agreements are not kept as well as in the past. However, these natives will still compare favorably with any that I have met.

Reindeer.—The reindeer industry was very successful in the marketing of 42 reindeer at a single sale, besides a number of smaller transactions. The butchering of an occasional deer in case of the owner's illness has been greatly appreciated on several occasions. However, there have been drawbacks. The herd was raided by wolves once in the fall and once in the spring. The wolves killed principally female deer, and slaughtered these as much out of pure lust for killing as for any other motive. I visited the camp on the occasion of one of these raids, and standing on a hill I counted the carcasses of a dozen deer which had been killed at regular intervals as if shot down by a rifle.

There is a great demand for meat in the Koyukuk, several dozen heads of cattle and large shipments of salt, canned and smoked meat being shipped in each year. While the sale of game is expressly forbidden by law, a large number of sheep, moose, and caribou are killed by pothunters and sold in the open market without regard to the open and closed season. It is very probable that the authorities would take steps to suppress this illegal traffic if assured that the reindeer service could supply them with a regular supply of fresh, healthy meat. It is equally true that less beef would be shipped in if the dealers knew that they would have to compete with reindeer each year.

ANNUAL REPORT OF THE UNITED STATES PUBLIC SCHOOL AT SINUK, NEAR NOME.

By Miss Grace A. Hill, Teacher.

Attendance.—I had no trouble in securing regularity of attendance. All the children who were in the village came all the time unless they were ill. I more often had to send a sick child home than to rebuke a well one for staying away.

Reading and spelling.—I was pleased with the progress made in these subjects. At the beginning of the year I graded the pupils by the course of study for southeastern Alaska. They had not become "grade conscious" and were willing to be moved about at my discretion. Before the year was out I found this grading a great help, and quite an incentive to better work. I tried to make their blackboard lessons treat of the things they were at the time most interested in, and found the method very good. Their vocabulary grew rapidly.

Spelling also had an important place in our school day. At the beginning of the year we put a checkered spelling honor roll on the board, with the children's names. Each day stars were filled in for perfect work. We made the stars in the rainbow colors, five stars of each color, so that we completed the rainbow

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about every six weeks, whereupon we cleaned it off and started again. There was great rivalry to see who would finish the rainbow first. The novelty of this did not wear off all through the year. This honor-roll system also proved to be an incentive to attendance. On very stormy days little children sometimes told me they came because they wanted a star.

Arithmetic.—It was a long time before I felt much satisfaction in our progress in arithmetic. During the last three or four months, however, arithmetic became as good a game as football. This was partly due to a multiplication drill we stumbled upon. One day I sent a child to the board to be quizzed by the rest of the class in two times "mixed up." This was entered into with great enthusiasm. The other classes watching the process asked for it when their arithmetic recitations came. After that every day each class for a while "played" this "game." They made rulings themselves. When a new table was introduced they asked it "straight" the first day, and after that "mixed up." One child kept tally at the board. A wrong answer, or having to be told, was marked as a mistake. When the whole class got 100 the same day a new table was taken. The tables were quickly mastered and then reviewed many times. After this we took "one-half of," "one-third of," etc., and "divided by." At first interest flagged a little on these, but when they became accustomed to thinking of the tables in this way the variety was welcomed. Children who had taken little interest in arithmetic before, and seemed really stupid in the subject, responded amazingly. We also used the "primary arithmetic test" games and had frequent mental arithmetic drill. With these methods no part of the day's work brought more hearty enjoyment than the arithmetic.

Nature study.—Children naturally love everything pertaining to nature and the outdoors, and I think this love can be turned to great advantage in the school work. It was surprisingly hard to do this at first. This was largely because they did not know the English names for familiar objects, such as birds, insects, and flowers. During the winter we took much pleasure, as well as profit, in this study. I had spent much time the previous summer studying the flowers and fauna of the tundra, and I made the best use possible of this. In many instances the children were able to add to my information.

Before spring we became much interested in the birds. I was pleased to find that the Government is sending us such useful and attractive bird books. They drop into our school at the psychological moment. The next thing I wish the Government would do along this line is to get out some pamphlets for organizing among the Eskimo schools a society for the prevention of cruelty both to birds and dogs. I think it would be popular with the children and would do much toward preventing unnecessary slaughter of the birds.

Gardening.—I think we may really be said to have done a little in gardening. As this is a bleak, sandy spot, no teacher has ever considered it worth while to introduce the subject. I am not altogether without faith. I think if the sand and tundra soil could be mixed, garden beds might be made that would grow enough turnips and potatoes for the village. We did not try anything along that line this year, however. We confined ourselves to window boxes. In these we planted radish, lettuce, beans, nasturtiums, pansies, and some wild-flower seeds we had gathered in the fall. We watched the growth of the bean each day, and told its story in drawings.

Language.—At first the language work was so slow that I almost despaired of results. Written work was a great toil, but we let no day go by without its language periods, and in time it came to be quite a pleasure. Memory work was always inspiring, and we memorized quite extensively. The school learned to say in concert, among other selections, 64 lines from Hiawatha's

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Childhood. When I first tried to introduce story-telling, however, it was a flat failure. Feeling that much was to be gained from story-telling, I approached it from another angle. I showed much interest in their games and adventures, and the interesting happenings of the village and reindeer camp. We came to spend the first five minutes or so of school "just talking," and soon they were telling me stories. When I saw the enthusiasm with which the children turned to their other work after this I often thought of these little chats as connecting links which carried their outside world over into the schoolroom. The year was well advanced before I again asked for stories. This time at the word "stories" there was a stir of attention. "What kind of stories?" I was asked; "Eskimo stories?" So we came to have quite a story-telling craze. When the supply of Eskimo stories ran out the readers and "village library" were ransacked for new ones.

Geography and history.—Our story-telling led to all sorts of beautiful possibilities. It worked wonders in history. We did not have recitations on Washington, Lincoln, and Columbus, but told stories about them. Toward the last of the year a very nice plan developed from this. Stories of the early life of Sinuk sprang up, so we began making a local history which we were illustrating with imaginary sketches. We did not have time to complete it, however. A geography was to follow the history.

In geography we found a sand table indispensable. With its aid the children quickly became familiar with all the common land and water forms.

Temperance and hygiene.—We taught these subjects regularly. I believe the children here are exceptionally clean. Except for sending one home now and then for a good scrubbing, we had very little trouble along that line. We talked much about fresh air, until the children seemed to feel that it was of vital importance, often asking during school hours for better ventilation; at recess they took great pleasure in opening the doors and windows wide for a good airing. I noticed, however, that they were not so enthusiastic in their homes, and I attribute this to the stubborn habits of the old people. The third and fourth grade children were much interested in the study of the human body.

Manual training.—We did nothing very pretentious in manual training. The periods in the earlier part of the year were spent for the most part in making much-needed repairs. Afterwards we made neat shelves for the village library, a sand table, window boxes, and other little conveniences for the schoolroom. For themselves the boys made boats and sleds. I find the Eskimo boys take very aptly to carpenter work. The sloyd room was also in constant demand by the older men. Every family had a new dog sled. One man made three, two of which he sold in Nome. Two new native houses went up this year, one of which is a two-story building. Some of the young men are very mechanically inclined. It will be a splendid thing for them when there is an industrial school in this part of Alaska.

Sewing.—All the girls in school learned the simpler stitches. The little ones hemmed towels and made handkerchiefs and holders. The larger girls learned to hemstitch and did some really beautiful work. They also made white caps, sleeve protectors, and aprons for the cooking class. All the older girls learned the use of the sewing machine. The sewing machine was very popular with the women also. Many parkas and dresses were made on it. I find the women as apt in dressmaking as the men are in carpenter work

Cooking.—The first feature in our cooking class was the making of attractive and durable books for notes. An artistic conventional design of our own leaves and edible berries was worked out for the cover and colored in water colors. The girls took great pride in these books and, as it was a new feature, much

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delight in all the cooking work. This made it possible to conduct the class happily after school hours and on Saturdays. Our time was so full that I did not feel justified in dismissing the rest of the school for the cooking class. We studied cleanliness in cooking, measurements, and how and what to buy. Then we considered the value of the various native foods. For the most part the course was a development of my experience in doctoring in the village. I found that, while they are well and exercising out of doors, the hearty Eskimo food is very good; but when they are sick—at least, as they prepare it—it will not do. They feel this themselves, and then turn to white man's food in the shape of strong tea and coffee, and seem to feel it affords them nourishment. We devoted two of our booking periods to beverages. We made tea and coffee and also cocoa and postum, considering the comparative costs and the reasons why the two latter are safer drinks, especially for children and invalids. We then cooked breakfast cereals, rice, and beans, also dried apples and prunes. We made inexpensive candy in an endeavor to break the cheap-candy habit. The class also learned to make good biscuit. Really only a beginning in cooking was made this year. For the last month we planned to fry doughnuts in fresh seal oil and to make bread, but that, like many other of our plans for May, had to be given up because of the drop in attendance.

The school republic.—We organized for the first time the school republic in this school. There was so much to learn and so much to be taught that we had to develop it slowly. The children enjoyed it, and it was no little help to me; not that it lightened my labors; it did what was better, though, it made some of my almost despaired of reformations seem possible. I had talked care of property, especially of the books, until the subject seemed worn out, and yet fresh pencil marks would appear now and then, and, as some of the books were old and already pretty well marked, it was impossible to tell the new from the old. There is nothing malicious in this little destructiveness, but valuable perishable property is new to the race, and it is very difficult to work up a fine feeling for its preservation. The making of the laws of the republic were left to the council, and, to my pleasure, the first one made was for the protection of the books. This they began to enforce with great vigilance; whereupon we went over the books, or at least nearly 300 of them, laboriously sometimes, cleaning them page by page and mending where it was necessary. I heartily approve of the school republic, and think there is no quicker or more efficient way of fitting the Eskimos for citizenship.

Housekeeping.—The houses are not dirty. Clean floors and a certain amount of order usually prevail. Most of the houses are reasonably well ventilated and sanitary. In my visiting I frequently made suggestions regarding ventilation or cleanliness, which were, I think, all carried out. On the whole I felt that quite perceptible progress was made in housekeeping. Some of the younger women have expressed the regret that they can not keep their homes differently. The prejudices of the old people are still more or less of a stumblingblock.

Medical work.—For the first few months, before the steady cold weather set in, there was much sickness. After that there was very little. The people of the small neighboring villages get their medicine from here, and so do the reindeer boys. I find the people are very quick to come and tell of their symptoms and to want medicine, but they are not so conscientious about taking it. If I felt it of grave importance that a medicine be taken, I went to the house three times a day or oftener and gave it myself.

Means of support.—These natives handle very little money. They live largely upon fish, seal, and game. They also pick berries, which keep very well in sealskin bags. They trade curios, mats, baskets, dolls, and other articles, including

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a little ivory work, in Nome for food and other materials. The reindeer herd is, of course, a source of income for those who have deer. Occasionally a dog-team or oomiak trip is made, or a sled is built, or other work done for white men. Tastes are widening, however, and civilization has its requirements, even if they be only such things as brooms, washtubs, and soap. Some of the native foods are growing less plentiful, too, including the valuable walrus. It would add to the comfort and happiness of the village if some industry could be developed in addition to the reindeer. But owing to the physical conditions of the village such an industry is quite a problem. I have thought much of this and venture three suggestions which more experienced heads may repudiate at sight: (1) White men mine the beach here successfully. I have thought the natives might be helped to do this. (2) Among the hills behind the village are beautiful valleys and some small hot springs; would not such spots be favorable to fur farming? (3) Blueberries grow very abundantly in this vicinity. In season there are schools of salmon in the river. In the spring the finest crabs are brought from Sledge Island. A little cannery could surely be made to pay. Because the natives must sooner or later come to some such industries, it seems small beginnings now would at least be educative.

General conditions.—The low price of furs made the year comparatively a hard one. Nature, however, was exceptionally good. An abundance of driftwood was left on the beach. Great quantities of fish were taken from the river in the fall, even after the river was frozen over. There was no scarcity of game. Seal also were quite plentiful. Through the loss of the little mission schooner, the *New Jersey*, three families were left almost destitute. Aside from this there was no destitution, and the year was, on the whole, quite a comfortable one.

Summary.—I tried to study the needs and aptitudes of the pupils and to develop originality of thought. In this way the growth was within the children rather than an unfolding of my plans and ambitions for them. On the whole, the year's work was gratifying, and I do not wonder that teachers come to love the service.

In this year's work I have appreciated my nearness to the Nome office, to which I turned continually for help and advice, and from which I always received at least sympathy. And in the darker moments, which come especially in the medical work, when one struggles alone against overwhelming odds, even sympathy is much.

Recommendations.—In review I again submit the following recommendations:

(1) A hospital in this vicinity. I had a small child die of rickets that I think might have been saved in a hospital. We had two cases of acute rheumatism to fight. Just now a bright little girl is being taken with tuberculosis, when proper treatment might have warded it off.

(2) An industrial school for the Eskimos. The men are mechanical and apt, and they need practical instruction. For instance, they need to be taught how to make the best possible houses out of the material they have. And the women—nobody can guess but those who have lived among them how much they need to learn something of the care of their sick.

(3) An adapted health reader. More than we need primers and first readers, and we need health readers badly, we need an interesting, fully illustrated text adapted to the needs of these people.

(4) For Sinuk I recommend an industrial room for the women, where they can bake bread and learn to cook their foods. In the past years they have learned much of cleanliness, but I feel they have not made equal progress in cooking. Very little expense will fit a room that is here for this purpose.

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ANNUAL REPORT OF THE UNITED STATES PUBLIC SCHOOL AT AKIAK, ON THE KUSKOKWIM RIVER, IN WESTERN ALASKA.

By JOHN H. KILBUCK, Teacher.

The work of the school.—School opened September 8 and was carried on until April 7. The school consisted of two rooms—the primary and the advanced. The primary department was under the care of Joseph H. Kilbuck and was made up of little children 4 years old and older children who were not ready to go into the first grade. In the advanced room the course outlined in the "tentative course" for the first and second grade was, in the main, carried out in reading, arithmetic, writing, and English. In manual training particular effort was made to have both boys and girls familiarize themselves with the work in which their parents are daily engaged. The parents were urged to cooperate in this by calling upon their children to help in the household work, and the fathers to teach the boys how to set traps for fish and fur-bearing animals.

As part of the school work the boys were taken into the woods, where, under the direction of one of the old men, they dug out spruce roots, which are used in tying fish traps and sewing the seams of birch-bark canoes. Each boy worked for himself, and some gathered a larger bundle of roots than others. The roots are prepared for use by stripping the bark off, and then they are split into threads, the length and fineness of the threads depending on the skill of the worker. The next step was to find a log of spruce wood that could be split into splints for use in making fish traps. Here, again, the experienced eye of one of the men of the village was requisitioned to pick out from a pile of logs the one that is called trap wood. The piece selected was measured for a black-fish trap, was cut and split into halves, quarters, and eighths. The boys each took a piece, which they split up into splints. The splints are about five-sixteenths of an inch in diameter, the edges being smoothed down with a knife. Before starting for home there was target practice with a small rifle.

At another time the boys and girls were taken to a treeless meadow that had been the bottom of a lake, where grows a moss that is fine and closely matted together, so that it can be rolled up like a blanket. This moss they gathered for use in calking the seams of the cabins. The girls also gathered dried grass for use in winter as insoles for fur boots; also the grass used in weaving mats, baskets, and socks.

The boys made serviceable black-fish traps, some setting them in neighboring streams. With the knife the boys also made, besides playthings, shuttles and mesh boards for net making, match safes for hanging on the wall. They also had lessons and some practice in tying nets. Several boys had steel traps out for rabbits nearly all winter, which they looked after out of school hours.

The girls learned to weave grass mats and socks and socks woven from the thread of gunny sacks. They were also taught knitting and crocheting, making stockings and mittens for their own use.

The attendance throughout the year was exceptionally good, and the application was better than in former years. The scholars gave three public entertainments, at Thanksgiving, Christmas, and during the deer fair. There were songs by the entire school—duets and recitations. The public appreciated these gatherings, although the older natives could not understand all the English.

The entire school, except the smallest children, a few days before Christmas was taken out into the woods to get Christmas trees and greens for decorating the homes and the church. How the woods rang out with joyous shouts whenever a suitable Christmas tree was located. The procession home, with a dozen

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or more sleds loaded with trees and greens, and the brownielike little Eskimos, tugging and pulling, made a sight one was glad to see.

In January, after the deer fair, the older scholars, boys and girls, were called upon to clean and scrub the schoolrooms. When this was done, the assistant teacher and the boys went out into the woods and held a midwinter picnic. A huge fire was made and beside it the picnickers ate their lunch of tea, sugar, pilot bread, and dried fish. The girls had a picnic too, but it was in the house with Mrs. Kilbuck. They too had lunch, and afterwards they looked at pictures and photos of other lands and people.

Gardening.—The benefit of this industry was brought out very clearly this year by the hard conditions prevailing in obtaining the imported necessities of life, such as tea, flour, and sugar, on account of the lack of work for wages, and the small price of furs. The gardeners who successfully raised potatoes, turnips, cabbage, and beets not only had these vegetables to add to their diet of fish and meat, but realized not a little cash by sale. The cash sales for potatoes alone were over $100. This refers to sales in bulk, by the crate, and does not take into account smaller sales, when a few pounds would be taken to the store across the river and given in exchange for tea or sugar. The oldest man in the village must have sold $40 worth of potatoes. He raised the best and heaviest crop. This year much new ground was broken, and about 1,000 pounds of potatoes were planted. The people realize that potatoes are not only good sellers, but are also an important article of food. A number of housewives have successfully canned beets, berries, and pie plant. Mr. Schmidt, the trader, carried a good supply of Mason jars, which he sold at very reasonable prices, to encourage the natives in canning berries and vegetables.

From the beginning of July until the heavy frosts of fall all the people have all they want of radishes, turnips, lettuce, and greens. Even the dogs get greens cooked with their fish, and they seem to relish it. The families, who have gardens need very little help and urging in planting their gardens. They are now well on the way to self-dependence and learn as much from actual experience as from instruction. The children are taking part in this work, and in some families it is the children who make the gardens a success. In order to encourage the people still more in striving to do good work in tilling the soil, we propose to hold a village fair next September, when the products of the gardens will be exhibited. The fair will be somewhat after the order of a county fair in the States, except that it will be just for the village. The large tent sent to us this year makes an ideal pavilion in which to place the displays. In time the fair might be open to near-by villagers who wish to exhibit. Gardening is still new in other villages, as Tulksak, Akiakshoak, and Bethel, but in time there is no reason why these places can not raise as big and as fine vegetables as Akiak.

The village.—Although the price of the necessities of life remained about normal, the wherewithal to obtain these supplies was sometimes lacking. Owing to the European war the price of furs dropped from 50 to 75 per cent below that of last year, and the catch was much less than the previous season. Then there was the unfavorable summer, with frost every month, which cut down the garden crops, especially the potato yield, to one-half of a normal one. Under these conditions our people have been put to a severe test. They had to do without such things as new clothing and soap, and in some cases flour, tea, and sugar were scarce.

Since the last report four new cabins have been built and a room added to another cabin. Three of the new cabins belong to reindeer herders of this village, whose families will occupy them during the school term so that their children may attend school. The houses of Akiak are arranged in three rows,

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with ample space around each cabin. The houses are in good repair and are kept clean, and the premises show that the owners are interested in keeping them in good shape. In the houses where there are no children, or only one or two, the order and cleanliness are all that can be desired, while in those which are full of children the housekeepers plainly get discouraged and are inclined to give up trying to keep a neat and tidy home. Every cabin has good facilities for ventilation, and although these are well made use of in ordinary weather many of them are closed up during very cold windstorms.

Soap was a scarce article with us this year, and from the complaints we heard over this lack we realize that the people count soap as a necessity.

The disturbing element in the village life was the presence of a man mentally deranged, who accused various ones of having caused the death of his brother.

We often gathered in the church, which is the only place we have sufficiently large to accommodate all the people. Talks were given on sanitation, general information, news of the war, and seasonable suggestions about work. The Rev. Drebert, of Bethel, loaned us his Ballopticon lantern, and we gave two lantern exhibitions. The Thanksgiving dinner has become a fixed feature, which is altogether a village affair. A handsome collection for the destitute was taken up at this time, which was distributed to the needy at home and to individuals in other villages, besides giving $5 each to the two janitors of the church. Earlier in the fall a special collection was raised toward the purchase of an organ for the church and the sum of $32.50 was realized. The demented man's family, the family of the drowned man, and another family, who through sickness last summer got short on fish, were helped out with dried fish given by a number of families.

A new feature introduced this year was the ringing of the curfew at 8 o'clock in the evening. The parents were thankful for this, since they themselves seemed unable to get their children home at reasonable hours.

The reindeer.—Akiak is now the headquarters of 9 different herds of reindeer, under the care of 38 men. The distance from Akiak to these camps ranges from about 30 to 75 miles, and in direction they are east, south, west, and north. The deer in the various herds, from the latest reports, have passed through the winter in fine shape, and there is a very low death rate among the fawns. The herds of the Lapps, Spein and Sara, have become so unwieldy that there is considerable trouble to keep them intact. The Oungagtuli herd has been the most poorly managed, while the Nukluk camp is the best of all the independent camps.

With such a large school on hand, coupled with the responsibility of caring for an insane man, it was not possible for us to visit the herds even once, except the Kinak herd. This herd was brought up from the Kanektok River to within a few miles of Bethel. Here under our supervision the deer for the Kalkak herd were cut out.

Three independent herders had houses built in Akiak village, one at a cost of four deer—two females and two males; another at a cost of three female deer; and the third paid two male deer and the rest in cash. These deer were earned by two natives of Akiak and one of Bethel.

During January, February, and March Peter Williams, one of the young men of this village, was employed as a teacher to travel among the deer camps. He taught reading, arithmetic, and writing, also the keeping of accounts. From his journal we learn that there was good attendance at his night schools at the various reindeer camps, all the boys manifested great eagerness to learn, and their application was good.

The deer fair was again held, but as regards events, it fell below that of other years in attraction. The open winter prevented the attendance of four

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A. IGLOO FAIR. A DELEGATE SHOWING HIS NEW STYLE OF HARNESS.

B. IGLOO FAIR. THE WINNERS OF THE FIRST AND SECOND PRIZES FOR HARNESS.

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A. HOONAH, IN SOUTHEASTERN ALASKA.

B. UNALASKA, ON ONE OF THE ALEUTIAN ISLANDS.

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camps. There was only one speed race over a measured course of 6 miles. The track was in very poor condition for 3½ miles on the river, there being only a light blanket of snow over slippery ice. Three Lapps were among the 12 racers. The contest really was between the Lapps and the native deer men. Wassili, a native, finished first in 29 minutes, and Julius, a native, was a close second, being about a half of a minute behind. Only one Lapp was able to reach the post, and he was beaten in the last mile, coming in fourth. Ten dog-team sleds brought natives from up the river and 14 from down the river to witness the race. A large delegation of Bethel school children under Mrs. Boyd, with a banner on which was the name "Bethel," was among the visitors. A new feature of this gathering was a collection raised for the relief fund of widows and orphans made so by the European war. The white men present contributed most liberally, and the sum of $62 was the result. Matters pertaining to the deer, camps, and locations of summer pasturage were discussed in the meetings of the deer men.

The majority of the boys who have successfully served their apprenticeship and those who are now giving the best satisfaction are those who have been in school. The supply of young men who had attended schools has been exhausted some time ago, for the rapid increase of the deer has outstripped the supply of dependable apprentices.

The Kuskokwim district is large and thickly populated with natives who urgently need the benefits of the reindeer industry, and, from an economic standpoint, there is no other industry to which these natives could turn to save themselves as a people. The step from the present habit of each individual doing what he pleases and just as he pleases to the requirements of the reindeer industry is a long one and only an exceptional native can successfully make it. The school is the natural stepping-stone between these two modes of living and makes it possible to extend the reindeer industry to a greater number of individuals. This section of Alaska, especially on the coast, is so isolated and barren of resources that attract pioneer white men that the inhabitants are more primitive than those of other parts of Alaska. Would that more schools could be established in this district; then there would be less friction in the management of the deer service, and those in charge would not have to exercise so much exhaustive patience and forbearance.

It seems most desirable that there should be a local superintendent of reindeer in this district, whose principal duties should be confined to the active oversight of the industry. In this way a close instead of a long range supervision would greatly improve the reindeer service. It would keep a man busy to visit all the camps quarterly or even three times, and such visits are necessary.

Health.—Akiak has been the center from which medical aid was extended up and down the river. The supply of medicines of last year was exhausted early, but we got new supplies from Dr. Reed, of the Russian mission, and Supt. Evans sent us medicine from Goodnews Bay and Kinak. We divided our supply with Bethel and still have a good supply on hand. The cases treated in the village were pleurisy, tonsillitis, quinsy, rheumatism, heart trouble, eye and ear troubles, tuberculosis of the lungs, bowel complaints, asthma, and itch. Although the general health of the people has been good we have had to give up two children, who died in convulsions.

During the winter we were visited twice by Dr. J. Wilson Reed, of the Russian mission, Yukon River. The last time he came especially to attend a case of quinsy.

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ANNUAL REPORT OF THE UNITED STATES PUBLIC SCHOOL AT EAGLE, ON THE YUKON RIVER.

By Miss Lula Graves, Teacher.

When I returned to the work in September I found that the Indians had scattered and many of them were out camping in the hills to get their supply of meat for winter use. I opened school with only five pupils. I also opened night school for the adults and worked with them as well as the children. The Indians gradually drifted back until we had about our usual population.

I have continued to emphasize the reading lessons and have tried to give them a knowledge of the English language which would enable them to understand ordinary conversation and simple reading.

The Indians here use their native speech when talking to each other and in their homes. I am constantly surprised at how little of our language the men who have associated with white men know; their women know much less. The children used the blackboard a great deal for original free-hand drawing, a favorite theme this year being soldiers and armies. They got their ideas from illustrations in the papers and magazines and from hearing so much war talk, the war having interfered with the sale of their furs.

They learn to spell very quickly. I made some use of the spelling book, but drilled them most on words they found in the reading lessons and on those in common use. I tried to have them know how to spell the names of the common objects around them. I find they get the meaning of the English words they spell sooner than the ones they use orally. They like to write letters and I have encouraged this.

I taught the schoolgirls and some of the women in the village to knit and some of them to crochet. They would do more of this work if they could find a market for it. The women all use the sewing machine and can cut and make their clothing.

The moral condition of the village is good. The women are all married and living virtuous lives. The natives are generally law-abiding, their most marked disobedience to the dictates of the law being their inclination to kill fur-bearing animals out of season and to kill young moose. However, there is no great amount of lawbreaking along this line. The Indians on the whole are as law-abiding as the whites.

The Indians here are free from drunkenness. There has been no case of drunkenness since I returned in September and only two reported cases while nobody was in charge of the village during the summer. They undoubtedly obtained liquor from drifters on the river.

The sanitary condition of the village is somewhat improved. I do not see so much spitting around the houses. Some even of the dirtier Indians are making an effort to keep their cabins clean and to wash their clothes oftener. The children clamor for their Friday afternoon bath. I was able to get all the cabins whitewashed where there are young children or young people.

The general health conditions at present are better, but when I got home in the autumn I was kept quite busy caring for the sick. The Indians living at Forty Mile, Yukon Territory, formerly belonged here, so when they get sick they come here to die and be buried with their people. They sometimes come here in the last stages of tuberculosis. A boy about 20 was brought here to die. One woman persisted in taking her children with her when she went to help care for him, and she lost two of her children from tuberculosis last fall. I have used that as an illustration and impressed it on them at every opportunity—that her two children would doubtless be alive had she kept them out of the sick room.

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Most of the cooking lessons I have given them this year have been individual lessons. The leaders among them now know how to make nice bread, pies, and cakes. I have given especial attention to teaching them how to prepare vegetables in a palatable way.

The governor of Alaska visited Eagle during the summer. I have him to thank for making the natives proud of having whitewashed their cabins and having made nice gardens.

It was a great satisfaction to me to be able to show the governor and his friends some of the things that the Bureau of Education is trying to do for the natives of Alaska. The village had been nicely raked up, the cabins were reasonably clean, and the school property in good condition. The interior of the school building has had a new coat of paint and was clean and comfortable looking, even if somewhat bare. I have no rugs or carpets because of the health conditions of the village.

All the Indians who were in the village during the planting season have gardens, some for the first time. Two men would only plant potatoes; all the others have planted regular truck gardens. I did not attempt a great variety, having learned from previous years about what vegetables I could induce them to eat after they were grown. I confined most of their gardens to turnips, rutabagas, carrots, parsnips, cabbage, lettuce, and potatoes. I had very little difficulty in getting them to plant this spring, but the cultivation comes harder. It requires all the resources at one's command and taxes patience to the utmost.

These Indians will protect their gardens when once they have learned to value them. As yet they plant to please the teacher when they are urged to do so. I believe the vegetable food has had much to do with their improvement in health.

While the gardening has taxed my strength and patience to the utmost, it is with pride and satisfaction that I view the result. They are great for copying, and this leads me to hope that the example of my spring house cleaning and well-tilled garden will strike home eventually.

They can not be driven. We have to find means to make them want to do a thing in order to get any lasting advancement.

The natives in this village have had no means of earning money for the past year save hunting, trapping and fishing. Their dried fish brought the usual price, but they realized very little from trapping, as furs and live foxes were slow to sell and brought very low prices.

Long-continued sitting over bead embroidery does not promote the health of their women; we see many more men than women in their villages.

There is a marked decrease in the fish runs. They had no dog salmon last season and less than the usual amount of king salmon.

Many of the whites think the oil the boats are using on the Yukon accounts for the scarcity of salmon.

The Indians are no longer needed to cut the wood for the boats, and white men have taken their place as deck hands.

It has been hard for them since all their usual means of income ceased the same year, but undoubtedly the failure of the steamboats to employ them will result in good to them; they have trapped and lived in the open more and have depended on themselves for things they usually buy. They produced a whipsaw that I did not know they had and sawed nice lumber, with which they made a poling boat this spring. The boat is well made and answers all purposes. If the money had been at hand or credit could have been secured, they would undoubtedly have bought the boat ready-made.

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ANNUAL REPORT OF THE UNITED STATES PUBLIC SCHOOL AT KLUKWAN, IN SOUTHEASTERN ALASKA.

By FAY R. SHAVER, Teacher.

The work in the school and shop began the first of October. The school work was carried on by Miss Calkins. The average daily attendance was 27.28, with an enrollment of 57. The work was conducted on very much the same plan as a well-organized rural school. Language work was emphasized. More time was spent with the smaller pupils, as their future work depends much upon their first two years in school. Phonics and object lessons play a most important part in their instruction. With the older pupils grammar and arithmetic were emphasized.

In the industrial work for the girls the sewing classes made 15 holders, 13 silver cases, 13 aprons, both simple and elaborate, 5 dresses, and 5 crocheted caps. In cooking they made hot biscuits, corn bread, plain cake, cup cake, doughnuts, rice pudding, custard pudding, potato soup, pea soup, vegetable soup, creamed potatoes, and cooked meats and vegetables in several ways. Chocolate fudge, taffy, and peanut candy were also made.

The industrial work for the boys and young men was carried on on much the same plan as last year. All the work done was of a most practical kind. Fourteen Yukon sleds were made, of which seven were sold in Haines. The Hanson Hardware Co. bought all of the sleds from us, which shows the good class of work we are turning out. The value of the sleds was $95. Besides the sleds, two kitchen cabinets and many smaller things were made. One of the cabinets sold for $20.

In the sheet-metal work 10 stoves were made—5 air-tights, 2 cook stoves, and 3 camp stoves—besides 100 joints of stovepipe. About $25 worth of repair work was done on stoves that would otherwise have been thrown away. These jobs were given to the older boys, and they were allowed the profit on same. There are two young men working in the shop, each of whom can make a stove a day, which sells for $7, the profit on each stove being about $5. The stoves and pipe are made out of two gauges heavier iron than is generally used, and the work done is as good as is turned out of any average shop. The younger boys were allowed to assist in much of the work, thereby getting a practical idea of the use of the tools employed.

By July 1 the gardens were all in good condition, the natives of the village having taken a greater interest in the work than during any year previous. They paid closer attention to the work carried on in the school garden, and while not putting into practice all that they saw, there was a great deal of improvement in nearly every case. I have encouraged the raising of potatoes, as the root maggot has to be combated in the turnip, rutabaga, radish, and cabbage. Cabbage will overcome the attack if properly taken care of and will form good, solid heads. Onions grow finely from seed and sets. Carrots and parsnips grow to their best here. The asparagus set out last year grew well this spring; so we have added another vegetable to our list. The natives raised from 150 to 200 sacks of vegetables, which was nearly enough to carry them through the winter, although they would have used many more if they had had them. Some people sold several sacks of potatoes, and most that had gardens saved enough for seed. About a third more ground is in cultivation this year than last, and with the extra care it is getting, there should be between 300 and 400 sacks of vegetables. Gardening being a comparatively new industry with them, they have to be encouraged a great deal. They are proud of the number of sacks of vegetables they raise.

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The orchard set out last year is doing finely, although the mice ate the bark off some of the trees. I will protect them with wire cloth during the coming winter.

Alfalfa has lived through two winters and is as fine as I ever saw. It is ready to cut now, just when the weather is best for curing it. Alfalfa hay costs $45 a ton at Klukwan when imported from the States.

One young man cleared nearly half an acre of land several hundred feet from the end of the village.

The canner proved a valuable addition to our equipment. Nearly a thousand cans of fish, meat, and vegetables were put up. We canned 4 cases of wild goat meat and 2 cases of brown bear meat; also about 600 cans of salmon. The rest was made up of peas, spinach, and swiss chard. We hoped to have a larger cannery here this year, but the natives say they have no money. The fact is they have a reserve laid aside for a big potlatch when they die. They will not touch this reserve, but add to it from time to time, even though there are many things they need. If this year's fishing is good, I have every reason to believe that a cooperative cannery will be built.

Mrs. Shaver attended to most of the medical work. There was about as much sickness in the village as usual. Medical assistance was rendered 1,216 times. There were two births and three deaths in the village during the year. Dr. Lambie, from the Army post at Haines, made a visit to the village and besides assisting in the medical work, gave a talk to the natives on sanitation. Several mothers' meetings were held.

A civic improvement meeting was held this spring, the results of which were very gratifying.

Entertainments were given by the school, to which all were invited. The parents take a great pride in the ability of their children to speak in public, although they may not understand a word spoken. We have pieces interpreted for them at times.

The Forward Club met once a week. There were some very interesting meetings from which I came to more fully understand the natives' viewpoint. The logs are out and on the grounds to build the clubhouse. The boys will start work on it as soon as the fishing season is over.

The cooperative store paid a dividend of nearly 20 per cent. Supt. W. G. Beattie came in December and audited the books and helped us in a great many ways.

We surely appreciate a superintendent who has the comfort of the teachers and the welfare of the natives so thoroughly at heart.

We received 2,287 visits and made 503 visits to native homes.

The work of lifting the people of an Indian village out of their old customs is slow and very discouraging at times, but every year sees some advancement which no one, who thoroughly understands conditions can say is not well worth the effort and money spent.

ANNUAL REPORT OF THE UNITED STATES PUBLIC SCHOOL AT HYDABURG, IN SOUTHEASTERN ALASKA.

By CHARLES W. HAWKESWORTH, Teacher.

At the opening of school we made up our minds that, if possible, we would make a record in three things—attendance, scholarship, and athletics. During the first week of school we numbered, with the price-marking outfit, each of the folding chairs sent us. These we fastened together in rows in

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the Social Hall. Each pupil was given a number corresponding to a seat in a row. It was understood that the first bell would ring at 8.30, Sitka time, and the second bell at 8.55. At 9 o'clock each boy and girl was supposed to be in his or her chair. As the year went on there were surprisingly few mornings when any one was absent; and on those few occasions the absent member either sent a note or a message by another pupil accounting for the absence.

We took the "Course of Study for the Common Schools of Illinois" as a guide for our year's work. Naturally we could not follow it in everything, and there were many things we did not want to follow it in. Our aim was to educate the pupil for life, to be a useful member of his own community and to show that usefulness just as soon as possible.

The English language is noticeably lacking in towns where all the people understand a tribal tongue. Since all of our people are anxious for citizenship, and since the English language is supposed to be the language used by citizens in their homes and in their conversations with each other, we endeavored to overcome the Hydah tongue by adopting the slogan, "Hydaburg an English-speaking town in five years." Several of the young men took it up, and we talked it up in every sort of a gathering, from the school chapel exercises to town-council meetings and church services.

In all of the lower grades we decided to dramatize every story read, experimenting on the intensive rather than the extensive method of education. The experiment was successful. To-day those first-grade children can talk and use English intelligently. They have mastered more English this year than they have in all the years they have been in school.

In the work of the upper grades we ever kept in mind that most of our pupils would in all probability spend their lives in Alaska, among their own people. In reading we tried to make the selections as clear to the eye as to the mind. That is why we carried the dramatization into these higher grades. Early in the fall we presented "The Story of Capt. John Smith," and for the Christmas celebration we gave "Dickens's Christmas Carol." Notwithstanding all the emphasis we put upon the use of English, we were not able to get the school children in their own conversations to adopt it.

In our English composition we early started writing letters to other schools, and when the answers came back each letter was corrected, as well as possible, by the one who received it. This exchange of letters between schools is a good working proposition. Scholars, like teachers, are anxious to see the kind of work done in other schools, and when they make a language lesson of the letters received, rewriting them in corrected forms, as best they can, they get an impression that is not easily lost.

In geography we used the European War to good purposes. As soldiers were sent from just across the line, in Canada, to fight in this war, it has become real to the Alaskan children. The food supplies and the clothing required by the armies became a potent stimulus to the imagination of the class, and as Current Events came weekly there was always most excellent material for interesting and definite instruction as to places and people in the world.

We had hoped for a rhetorical contest with Metlakatla during the year, but since they were all very busy erecting their new building that idea had to be given up. We did, however, hold a local prize speaking contest at the end of our school year. It was the first of its kind ever held, as far as we know, in the native schools, but owing to the excitement incident to a local campaign by the "Church army" from British Columbia it did not get the absorbed interest of the school during the weeks of preparation that it deserved.

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However, the meetings ended about 10 days before school closed, and then we got down to business. The contest was very creditable. Elsie Peel won the gold prize with "The Drowning Singer," and Gideon Duncan the silver prize with "John Maynard."

For athletics we are fortunately located. In fact the flat, hard, sand bar in front of the town, that is always dry at half tide, makes an excellent baseball ground, and was one of the reasons why the young men wanted this location for their town site.

Last year we started a town hall, but all we did on it was to put up the frame, get the roof on and the floor laid. Soon after school opened, I thought it would be well for the boys to get the game of basket ball started, and it might help work up some enthusiasm for completing the town hall. Basket ball captured the town. Some of the older boys, who had been to Chemawa, made the baskets and all the men started in to finish the hall, each man giving his time to the work. Within three weeks the whole job was finished, even to making galleries and putting ceiling on the whole interior.

Word reached Klawock of the work we were doing. They ordered a basket ball and started in to practice. Our school team and the town team (made up of returned Chemawa boys) sent challenges to Klawock for games in their town on November 20. The challenge was accepted and we went and played and won both games. When the notice of the game was published in the Wrangell paper it seemed to set all the towns along the coast into action. All organized basket-ball games, and for the first time in southeast Alaska the towns got together in the field of sport. In connection with athletics I wish to say that since it is the athletic spirit that binds together the student bodies in the schools of the States, we must introduce an athletic spirit into our Alaskan schools.

You will recall that in my report a year ago I stated that our people have two sources of revenue. One is the king-salmon fishing at Forester Island, and the other is fishing for the canneries. The Forester Island fishing last spring was a failure.

The cannery season on this west coast of Prince of Wales Island was also a failure. The stream that runs through the center of our town, which in an ordinary season is full of salmon, was empty all last summer. I never was able to see one salmon swimming up the stream.

The old people tell me that in former years there would sometimes come a season when there would be no fish, but there has never, within the memory of the younger generation, been a season like the one we have just passed through. It meant that practically every family in town had to begin the winter without money, unless they were fortunate enough to have had some laid by from a previous season, and there was no way of getting more money until another season came around.

However, the store and lumber business has been more of a success this year than we expected. With the money so scarce and the credit sales so big, we feared that there would be almost no dividends at all in comparison with the returns of a year ago. But when Mr. Helwig came in January and closed the books he found that the consolidated business had made exactly $6,114 since the books were closed the year before. Of this amount $3,721.94 was paid out in cash dividends and $2,392.06 put into the reserve.

It is impossible to overestimate the value this cooperative business is to our community. So far we have declared three annual dividends, and $12,727.53 has been returned to the people in the town who use the store. I can conceive of no greater blessing that could come to the native towns of Alaska than to get cooperative stores operating in them all. Then, in the course of years, the supplies for all could be purchased in such large quantities, through one office,

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that the reduction in the cost of living would be as noticeable and as beneficial to the Alaskans as it was to the pioneers in cooperation at Rochdale, England.

The general health of the town during the year has been excellent. We have had the average number of deaths and some little sickness, but there has been no long-continued sickness such as we had during the two previous years.

In looking to the future good of the work in Hydaburg, as well as for all Alaska, I wish to make the following recommendations:

That a course of study suited to the textbooks in use be adopted. Then we will know that when one speaks of the fifth-grade work in Klawock, or in Metlakatla, or in any of the other native schools, that a definite amount of work has been covered. In connection with this course of study test questions, at stated times, should be sent to all of the teachers by the superintendent, in order to establish a standard for the district. We should furnish grade certificates of promotion. It means a great deal to a young man or woman to have something in what looks like legal form to show for his years spent in study.

I also recommend that a printing press be purchased by the bureau and used in editing the school news for the whole district, and that each school have an editor for the local school work and one to give the gist of the world's news.

A third recommendation is that this coming school year the three schools—Metlakatla, Klawock, and Hydaburg—meet at one of the above-named towns for a live convocation. At this convocation we should have a rhetorical contest, possibly a debate, an exhibition of school work, a drama, and basket-ball games.

I further recommend that the Bureau of Education follow the lead of progressive school boards on the Atlantic coast and establish a school ship for the Alaskan natives. I have in mind the old *Enterprise* and *St. Mary*, which were school ships and nothing else. Ours should be all that they were, and freighters as well. On them all the freight sent by the bureau to Alaska could be shipped and all the teachers traveling to and from Alaska once a year could take passage. Who in the whole world are better natural pilots and navigators than these Indians of southeastern Alaska? For generations these people have sailed their canoes from Puget Sound to Sitka, and they know every bay and inlet and channel on the coast. These people are as much at home on the water as Eskimos are on snowshoes. At the present time in Hydaburg alone there are 22 fishing boats equipped with engines. The natives go anywhere, but as yet they have no technical knowledge of navigation.

This ship would be of great influence in cementing the tribes of Alaska into one solid working body. The most promising young men from the whole Territory would be picked for the positions on board. This open-air life would conquer tuberculosis.

My last recommendation is that a fund be created to encourage industries among the people of Alaska. A cannery is absolutely necessary to the future of Hydaburg. Without it this town will be nothing more than old Howkan and Klinquan—a winter camping ground. The whole town is most anxious for a cannery, but we lack the capital. The cannery was foremost in the minds of the people when they moved here. Every year it has been discussed and every year it has been dropped because there were no funds.

From what we hear from the Canadian side it seems that the Canadian Government has already established a fund to encourage industries among the native people. We must get help to those who, like these Hydahs, are willing to help themselves but have not the capital. We must have a future. Without business there is no future. Without a fund there can be no business.

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SECTION 4.—REPORT OF THE FIRST REINDEER FAIR.

By WALTER H. JOHNSON, Assistant Superintendent, Northwestern District.

During Mr. Lopp's visit to Nome, in the autumn of 1914, plans were discussed for the holding of a reindeer fair or conference on Seward Peninsula during the coming winter. After careful consideration it was decided that Igloo would be the best place for the fair, being centrally located and having in its vicinity good moss pasture for the reindeer and a plentiful supply of timber for use in the camp stoves of the delegates. It was decided to hold the fair during the second week in January, although the days would then be short, the sun going down soon after 2 p. m. Later in the season it would be difficult for Supt. Shields to make his tour of inspection, as the mild weather would make the trails impassable. Instructions were sent to all of the local superintendents, Government teachers, and reindeer men; plans were made for supplying food to the visiting delegates; Mr. Hunnicutt, local superintendent at Igloo, was instructed to choose the site for the fair grounds, also to stake race trails, get tents and set them up, cut wood and have stoves and other paraphernalia necessary for a camp in extremely cold weather.

On January 7, at 11 a. m., Supt. Shields, Asst. Supt. Walter H. Johnson, Miss Harriet Kenly, teacher of sanitation, Carl J. Lomen, representing Lomen & Co., who have a large herd of deer in the Buckland district, Tautuk, chief herder of Nome Government herd, and Amuktoolik, his brother, as delegates, left Nome for Igloo, via Sinuk and Mosquito Pass, driving eight deer and leading a fast racing deer, and reached Sinuk at 8 p. m. that evening. At 9 a. m. on the following morning, with the mercury registering 20° below zero and a sharp wind blowing in our faces, we left Sinuk for Mosquito Pass in the Sawtooth Range. The weather was excellent for traveling with reindeer, and we made very good progress up the Sinuk River. As darkness set in, we reached a vacant cabin near the head of Sinuk River and at the foot of the pass leading through the mountains. The cabin was found to be very comfortable, and we spent a pleasant night. The deer were staked about a quarter of a mile away, where the moss was good, though the deep snow made it difficult for them to feed.

The next morning, January 9, facing a northerly wind, with the mercury registering 30° below, we left the cabin and started through Mosquito Pass, arriving at the summit at about 2 p. m., where a short stop was made, the deer feeding while we had lunch. The strong wind blowing through the pass had cut channels in the snow, making travel difficult, but after leaving the summit and starting down on the northerly side of the Sawtooth Range, the wind died down, and we found several feet of loose snow, which necessitated the use of snowshoes or skiis. The deer traveled steadily through this for about three hours, when we again struck the wind-swept portion of the pass. As darkness set in, it became impossible to see the channels in the hard snow, consequently upsets were frequent, but even though driving at a fast gait down hill and over a rough trail, because of the heavy furs that were worn by all and the agility of the members of the party no one was injured by these falls. Our faces were frozen several times, but rubbing soon remedied that. Reaching the level ground near the mouth of the Cobblestone River at 6 p. m., we made camp where there was an abundance of moss, using nothing but our sleds for setting up the tent. The weather had moderated, being only 5° below.

The following morning we cut across country direct for Igloo, which we reached at 1.30 p. m., being the first of the visitors to arrive. All the people were out to greet us, and they gave us a royal welcome. A few minutes later Mr. Replogle, with the Deering delegation, arrived. Their outfit consisted of

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15 sleds and 25 deer, and when they appeared with their fine outfits, made especially for the fair, each man driving two deer and leading one with a trailer sled, their sleds bedecked with colors, they presented a very fine appearance. The party consisted of Mr. Replogle and seven natives. They had come direct over the mountains from Deering and were seven days on the road. So close upon them that they appeared to be of the same party came the Shishmaref delegation. The Shishmaref deer men were represented by John Sinnok and Allakeok, who brought five deer with them. On account of stormy weather they had been unable to start when planned, so that it had been necessary for them to make some very long drives to reach Igloo in time, sometimes making over 50 miles in one day. Their outfits, like the others, made an excellent showing. Half an hour later Miss Brevig, of Teller, arrived. Mr. Maguire and the rest of the Wales delegation were unable to come, the storms being so bad that it was impossible even to start. They had made great preparations and would have made a fine showing; their sled deer are famous for their speed. After the arrival of the Teller people, Mr. and Mrs. Hunnicutt entertained the Government officials at a turkey dinner, which was greatly appreciated. General discussions were held on matters relative to the coming fair. Deer men were introduced to each other, and many new friendships were formed; from the enthusiasm shown, it was evident that the fair would be a success. Before we knew it midnight was at hand, and the Eskimos left for the places where they were to stay. The Igloo natives gave every native visitor a comfortable place to stay. The white visitors were accommodated at the schoolhouse, the men sleeping on the schoolroom floor, while the ladies were taken care of in the residence part of the building, Mr. and Mrs. Hunnicutt doing all in their power to make us comfortable.

On Monday, January 11, with the mercury at 10° below zero and snow in the air, we left Igloo for the place chosen by Mr. Hunnicutt as the site for the fair grounds, about 6 miles from Igloo and 1 mile from the famous hot springs. At the grounds we found several large tents and great piles of wood; large quantities of pork and beans cooked and frozen, bread, and other food supplies had been stored in a commissary tent. When it became too dark for outside work the officials went over to the hot springs and had a fine steam bath. The usual cold plunge bath was out of order, but running in the open air and rolling in the snow, with the thermometer registering 30° below zero, rendered us immune from taking cold after our hot bath.

At 6 p. m. the delegates met in the large assembly tent, and committees were chosen to take charge of the various events. Whenever possible a committeeman was chosen from each herd or community. The work was outlined, and every delegate was given some special task. The meeting adjourned at 8.30 p. m., and the committees met at the various camps or tents, where rules, regulations, time, place, and manner of events were arranged for. Though the hour was late when we retired for the night, here and there discussions could be heard. It is safe to say that at no time during the first night was the camp in complete silence. The wind died down, and the mercury dropped to 35° below zero. All slept on the snow in tents, without fire, but even the ladies were warm and comfortable in their reindeer-skin sleeping bags.

Tuesday, January 12, early in the morning one of the Igloo herds which had been stationed about 2 miles from camp was driven up, and as soon as it became light enough three steers were lassoed. These deer were butchered by the different methods used by the natives, and then the meat was distributed among the delegates for use during the fair. The steers were brought to the flat near the river in front of the camp. The people gathered around the deer, and talks and discussions were had as to the best way of judging a mar-

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ketable deer as to age, health, weight, fatness, etc. While this discussion was being carried on, the Council delegation arrived (three men driving five deer), and Simon Mukpeadeluk, of Council, was chosen to represent that district in their method of sticking a deer; Luke Loogloeena, of Igloo, represented their district in this event, and Tautuk represented Nome and the Government method. Luke and Simon showed extraordinary skill and drove the knife to the exact spot with one blow. Both of these deer were stuck back of the front legs and the opening closed by the hand, so that the blood was retained. Tautuk, as he took his position, was subjected to a great deal of good-natured chaff from the other Eskimos; they were skeptical, and they knew that Tautuk had never seen the method demonstrated and explained by Dr. Joss, of the Department of Agriculture, during his visit to Alaska, for Tautuk was back in the hills at the time of the doctor's visit; but Supt. Shields had carefully explained the doctor's method. Grasping the gullet and windpipe in his left hand, Tautuk pulled them downward and away from the neck; then, turning the edge of the knife toward the neck bone, he made a small incision back of the jaw, severing the jugular vein at the first stroke. The blood flowed freely and could have been easily saved, for it flowed in a steady stream from the small incision. The deer were then weighed, then dressed and weighed again, the weights being as follows:

Weight of deer.

	Gross weight.	Tare.	Net.
Simon's deer	276	128	148
Luke's deer	293	133	160
Tautuk's deer	266	118	148

Forty-five per cent loss in dressing.

When the deer were dressed and hung up for inspection talks and discussions were had as to the general appearance of the carcasses and it was plain that the deer killed by the method suggested by Dr. Joss, of the Department of Agriculture, was in far better marketable shape than the other two. Even though no water was used, there was not a blood stain upon the meat and no discolorations from the blood remaining in the large blood vessels as was the case in the other carcasses. One delegation claimed that they were amply repaid for their time and expense in coming to the fair by this one demonstration alone, for they had been looking for just such a method of butchering. Simon then stepped into the ring and demonstrated the quartering of a carcass; he did this neatly and in a businesslike manner, showing great familiarity with the anatomy of a deer. Using only his hunting knife he quartered it in four and one-half minutes.

Rifle shooting, 50 yards, January 12, at 11.15 a. m. Free arm, standing, five shots at a 3½-inch target. Twenty-four entries. Open to all Eskimos. Okok Thomas, Deering, first prize; Nook, Teller, second prize. Although the boys were using their high-power guns, which were sighted for a much longer distance, some very good scores were made.

Rifle shooting, 100 yards, January 12, 13, and 14. Any position, five shots at 8-inch bull's-eye. Thirty-two entries. Open to all Eskimos. Jack Kowmok, Igloo, first prize; Jimmy Eyuk, Igloo, second prize; John Anakartuk, Teller, third prize.

It was decided that the shooting should be done during the lightest part of each day until the contest was finished. This was done and several excellent

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scores were made. It was decided to count the center of the target, which was 2½ inches in diameter, as a bull's-eye. Jack Kowmok won by placing four shots in the small bull's-eye. No peep sights were used, though several of the men sat down. In the evening Okok Thomas gave an excellent talk on shooting, showing how a good shot should stand, position of gun, how flinching and jerking the trigger pulls the gun off the target, and how to overcome these habits by a steady pull and by watching the target so as to know just where the bullet hit. He gave such advice as the following: "Perhaps some day you will have only one cartridge and you will see but one thing to shoot, and if you have no food you must make that shot count." He also said that his father had insisted upon his always shooting carefully, telling him, "Maybe some day you will see a black fox; if you are not a sure shot you may miss it and $1,000 will pass before your eyes."

Burden race, distance 5 miles, January 12, at 2 p. m. Two deer; burden, 250 pounds of sand. Seven entries. Henry Kugazeak, Deering, first prize; time, 16 minutes 21 seconds. Tautuk, Nomé, second prize; time, 18 minutes ½ second. We are unable to find any record of better time than this being made even without a burden. The weather being extremely cold and clear proved to be ideal for driving deer.

After Okok had given his talk on shooting, Tautuk opened the general discussion by stating, "We are all here to learn what will be the best thing to do in anything that deals with the reindeer. Now we are all prepared to play, and in that way we will learn how to do each thing best and quickest. We want you to know the proper way to kill and dress a deer; if white men are going to buy our meat, kill it in the best way possible and do it the way they say is best, for they are the ones who buy it. We should thank all for what they do for us, for it is for our benefit; we should especially thank Mr. Shields. In preparing a carcass for market, we should try to make it look as nice as any good article that we have for sale and not try to fool the people. If we do good work, they will pay well, especially if we fix the carcass right, as we would any fancy article of our own."

Allakeak, delegate from Shishmaref: "When you work with deer, make your work count; if you wish a good living from your deer, you should think and plan how to take care of them. If you don't do that the herd will decrease, and if you don't keep a good watch some will stray away and they will stay in places where the moss is not good and get poorer and poorer. We reindeer men make our living from the deer, and there is nothing that we can do so well as to take care of our deer. We are now planning to sell all our meat at the same place and at the same price. This will be good, for then no one will envy the men from other herds. We should all work together for the good of the industry. I know what reindeer herders have lost because they did not stay near the herd and seldom went out to round them up. If you do not get out to the herd until late in the day the deer will scatter and stray. I have watched this carefully for four years and have lost very few deer, because I have always started early. Many of the deer men lose deer because they do not attend to business; the deer get lost, or killed, or taken by people. If you wish to be a deer man you should always attend to business."

Tautuk, on burden races: "A short time before leaving Nome Mr. Shields told me to get ready for a trip to Igloo, where we would have a fair. He said that at this fair we would show the best way to use and work reindeer and that we would have pulling contests between deer to see which could pull a load and make the fastest time. To make fast time you must drive; hold your lines so that the deer will go the way he should. When you are using two deer, one may be faster than the other, then it is necessary for you to drive

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so that each will do his share. In the burden race to-day I rode all the way, for the deer ran faster than I could, for I am getting old."

Lassoing contest, Wednesday, 9 a. m. Fourteen lassoers, two from each district. Thirty minutes each day. Contest to continue for three days, the man lassoing the most deer in the 90 minutes winning the contest; any deer with the lasso on when time is called to be counted; only bulls without horns and marked with a cloth around the neck to be lassoed.

This was one of the most picturesque events of the fair and was an excellent number for the opening of the day's program. The herd of over 800 deer was driven down to the flat and penned in by a sort of human corral. When the signal was given, the lassoers ran into the center of the herd and the fun began. It was a very pretty sight to see the gala-dressed natives moving back and forth to keep the deer penned in, the well-trained collie dogs on the outskirts ready to pick up any stray deer that might break through the crowd, the stately old females standing on the outskirts of the herd near the people, a few trained sled deer mingling freely with the people, the camp of eighteen or twenty tents among the willows on one side of the herd, and the snow-covered Sawtooth Mountains on the other. Though extremely cold and clear, plenty of action being necessary to keep the herd corralled, no one suffered from the weather. The bulls after being lassoed once became very tricky and would dodge backward and forward, running close to the other deer, and in every way possible tried to avoid the lassoes. When time was called on the third morning, Kapak, of Marys Igloo, had 11 deer to his credit; while Tautuk, of Nome, Frank Wells, of Deering, and Abloowalook, of Igloo, were tied for second place, each having 9 deer to his credit. Ten minutes additional time was given these men to decide who should be given second place. Abloowalook won by roping one deer more than the others.

Sled show, Wednesday, 10 a. m. Hardwood sleds, with braces and handlebars. Sixteen entries. Many very handsome sleds were exhibited, and the wrappings and braces were of extraordinary strength. Simon Mukpeadelook, Council, first prize; Tuck, of Igloo, second prize.

Sled show, Wednesday, 12.30 p. m. Hardwood sleds without handlebars (trailers). Again the Council natives proved that they knew how to make sleds by taking the blue ribbon. Edwin, Council, first prize; Wheeler Douglas, Deering, second prize.

Burden race, Wednesday, 2 p. m. One deer, 150 pounds sand burden. Distance, 5 miles. Twelve entries. Tautuk, Nome, first; time, 18 minutes, 49½ seconds. Topkok, Igloo, second; time, 20 minutes, 44 seconds. This was wonderful time, considering that each deer pulled a net weight of 150 pounds of sand and a man of approximately the same weight.

Wednesday, 7.30 p. m. After the officials had given their report of the day's events, the natives who had won in the competitive events were called on and told how they had been able to win. These talks were all given in the Eskimo language, and my notes were taken through an interpreter and contain only the gist of the speeches. It was impossible to get a great many of the clever remarks or witticisms.

Simon, on sleds: "They want me to talk about sleds, and, because they do, I will, but I am afraid that you will not learn much from me. To-day I saw many kinds of sleds; sleds that were big enough for two sleds; sleds that were strong and others that were weak. A strong sled will not break in a day, even if you have a bad trail and a heavy load, but a weak sled will not finish the day so well. When you make a sled for yourself, you make it good; but many of you when you make it for sale, make it not so good. You should make a sled as well for others as for yourself, also snowshoes. Make it always well, for

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then you can sell it and if you wish to use it yourself it will last longer, the same as any high-priced article. You who buy mukluks know this; cheap mukluks are poorly made and are no good. If you make cheap articles, people will not continue to buy from you, but if they learn that you always make things well, they will always buy your things, even if they cost more. Always make things for others as you would if they were for yourself, for it will always prove to be best."

Edwin, on sleds: "The people who make things should not make them for show, but make them good, for themselves or for sale. I think that is why we have this fair here, to prove that it is best to make everything best that we know how."

Thursday, lassoing contest. The contestants exerted themselves to the utmost, but were unable to throw as many bulls as the first day, several adding two to their score.

Harness exhibit. Collar, traces, backstraps, and singletree. Exhibit harness on deer. In this event the Igloo boys outclassed the others by having very elaborate trimmings, besides well-chosen material, carefully made up. Oquillook, of Igloo, first prize; Segayuk, Igloo, second prize.

Harness exhibit, new style. Breast strap instead of a collar. Kaffenuk, Igloo, special prize.

Harness show, Lapp style. Kaffenuk won first prize with an all-leather harness, and Simon's was second choice.

Halter show. Oquillook, Igloo, first prize (tanned leather); Simon, Council, second prize (braided rawhide).

Halter show, new style, Fred Thomas. The Deering delegates had brought a new-style adjustable halter that had a band around the deer's head just back of the mouth, to which the guide lines were fastened. With a slight change I believe this will be the coming halter for driving deer, but not for leading.

Thursday, 1.30 p. m. Driving wild deer. One mile. Fourteen entries. Rules: Reindeer herd to be driven up to the line extending across the river. At a given signal contestant is to enter herd, and rope, throw, harness, hitch up, and drive a horniess wild bull, between the ages of 1½ and 3 years, one-half mile up the river and then return to line, then unhitch, unharness, and remove halter, all unassisted. At a given signal contestant may have his sled brought up to where he has his deer, and the man bringing it must render no assistance, but immediately leave. Contestants will leave at three-minute intervals, and the winner will be judged by time. Deer may be driven, dragged, or hauled.

This event was the cause of much merriment, and the contestants tried every known method to make the bull go in the right direction. Immediately upon being lassoed the bull would commence to fight and try to get away, and it would then become necessary to throw him. When the assistant would bring up the sled the maneuvering to harness was laughable and exciting. No sooner would the harness be fastened than the bull would start to run wild and throw the men in all directions. In a short time nearly all of the contestants were in the race, and many exciting moments were experienced. One of the Teller men lassoed perhaps the largest and wildest bull in the whole herd, and he found himself unable to drive this deer at all, so he threw the deer alongside his sled, which he tipped on edge, and rolled Mr. Bull in, tied him down, and started up the river pulling the sled, while the spectators shrieked with laughter. Others dragged their deer a short distance at a time, held them down while they got their wind, and then proceeded. Of course, when the line up the river was reached it was only necessary to turn the deer around and he would start at breakneck speed for the herd stationed just back of the finishing line, and some very speedy wild rides were had on the way back. Many of the spectators

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wondered why Tautuk had a parki thrown over the handlebars of his sled, also why a long line was fastened onto the front part for apparently no special reason. Perhaps native shrewdness was displayed in this special case more than in any other event. After harnessing the wild bulls, they would try to run from the man trying to lead him (for it was impossible to drive him from the sled), pulling back on the line or running in a circle, apparently paying no attention to the sled fastened to a long line behind him. When Tautuk's bull jumped up, after being harnessed, Tautuk stood at least 50 feet to one side and the sled was directly behind the deer. As the sled was closer than Tautuk, he noticed it and when a short pull was given to the line on the sled, the parki moved with it, and the bull started up the river, with Tautuk running way out to one side, a line on the bull and one on the sled. He was the only contestant who did not drag or force his deer to go, driving him the whole distance and winning the race. Tautuk, Nome, first prize; time, 19 minutes 35 seconds. Kapak, Igloo, second prize; time, 21 minutes 14 seconds.

Single deer pulling heavy load. Four entries. Load to consist of sand, and deer to start it on the level snow and pull it 200 yards.

As a deer had never been tested as to the amount that it could pull, the men all loaded their sleds too light. The load was increased to 1,660 pounds. Three of the four entries pulled this load.

Thursday evening discussions were had relative to the events of the day and reindeer in general. At the opening of the fair the men were reluctant to give their opinions, but by this time their timidity had worn off. and many excellent extemporaneous speeches were given.

Four-deer race; 5 miles, Friday, 11 a. m. There was much speculation as to the outcome of this event, for it had never been tried before. When the four entries were lined up, four deer to each sled, driven double, it appeared as if it would be impossible for the men to keep their deer from entangling, but when the signal to go was given the teams started up the river in good order. When the teams returned, running at a good speed, not a deer out of position or in any way tangled up, a rousing cheer greeted them. Tom Akloowak, Igloo, first prize; time, 23 minutes 50 seconds. Fred Thomas, Deering, second prize; time, 27 minutes 45 seconds. Morfie, Council, third prize; time, 31 minutes 29 seconds. Amuktoolik, Nome, fourth prize; time, 47 minutes 53 seconds.

Two-deer race; 11 miles, Friday, 1 p. m. Twelve entries over a circular trail. As there was no way of accurately measuring this course, the distance was gone over several times and judged to be approximately 11 miles. The same was done on the other tracks or trails, for there was nothing to designate the track, excepting a piece of brush stuck into the snow about every 100 yards. The home stretch of a half mile, being on the river and wide enough for all entries to come in at one time, proved to be an ideal one. The teams were started at intervals of one minute, and as the winners passed many teams, their "deermanship" was proven, for it takes a skilled driver to pass a deer team on a single track. Oquillook, Igloo, first prize; time, 40 minutes 57 seconds. Allakeak, Shishmaref, second prize; time, 44 minutes 43 seconds. Okok Thomas, Deering, third prize; time, 44 minutes 55 seconds.

In this race 10 of the contestants made the 11 miles in less than 50 minutes, establishing a new record for driving two deer. This should promote the driving of deer teams, instead of the method now in use of driving one deer and leading another. This method requires a little more skill, but it does away with the rear sled, which is generally loaded with supplies that could be put on the same sled as the driver. The deer seem to make better time when hitched together, and they do not try to wander from the trail as much as when driven singly.

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Friday evening, 7.30 p. m. Fur clothing exhibit. Eight complete outfits consisting of parki, pants, mukluks, mittens, and sleeping bag, all made of deerskin with deerskin trimmings. The judges were the best fur sewers that could be found, and the three Eskimo women, in charge of Miss Brevig, were impartial in their decisions, judging by the length of the stitches, the tying of the threads, the tanning of the skins, the length and firmness of the hair. Oquilook, of Igloo, won first prize. This outfit was made by Mary, whom Igloo was named after. It was not the finest appearing outfit, but the material and workmanship were considered to be the best and was unanimously chosen by the judges. Allakeak, of Shishmaref, and Karmun, of Deering, were tied for second place; Tautuk, of Nome, and Sinnok, of Shishmaref, were tied for third place. Luke and Abloowallook, of Igloo, and Okok Thomas, of Deering, had beautiful outfits and deserve honorable mention.

Saturday, sled-lashing contest. We had been blessed with clear, cold weather and very little wind, until the last day of the fair. Saturday morning the wind commenced to blow, and there was a little sharp snow in the air, and the mercury registered around 30 below zero. Fortunately the wind and snow did not immediately increase, and we were able to have a few of our remaining events before it became necessary to break camp and leave for Mary's Igloo.

The difficulties under which the contestants in the sled-lashing contest labored may be imagined. It was impossible to remove the mittens, for the fingers would freeze in a few seconds, and if they came into contact with any metal they would adhere immediately. Working under these conditions some very good records were made. Each sled was loaded with a stove, grub box, clothing sack, and sleeping bag. These had to be wrapped and covered so that snow could not enter; outside of the canvas cover, under the lashing where they could be gotten at readily, were a rifle and snowshoes. The same load was used for each sled, and the only contestants considered in this exhibition were those whose loads withstood the rough and thorough tests of the judges, which consisted of rolling the sled over and over, backward and forward, several times. If the load was then in good condition and snow proof, the man's time was taken. Harry Karmun, Deering, first prize; time, 2 minutes 24 seconds. Frank Mosquito, Igloo, second prize; time, 2 minutes 31 seconds. Harry Karmun used only one rope, which he had fastened to the back of his sled; all the other contestants used two.

While the sled-lashing contest was on, the men were getting their deer ready for the 11-mile race, which seemed to be the big race of the fair, deer being held out of other events and saved for this one event.

Saturday, 11 a. m. Eleven-mile race, one deep, start in three squads at 8-minute intervals; 17 entries. Kapak, Igloo, first; time, 41 minutes 33 seconds. Morfie, Council, second prize; time, 41 minutes 35 seconds. Allakeak, Shishmaref, third; time, 41 minutes 36 seconds. Amuktoolik, Nome, fourth; time, 41 minutes 36½ seconds.

A very generous spirit was shown in this race by one of the delegates. Having won several ribbons and his brother none, he turned over his pet racing deer to him, which had not been entered in any other event during the fair and had run loose all the way en route and was in first-class condition. As he was familiar with this pet deer, everyone felt that he could have driven a winning race, whereas his brother lost by 3½ seconds.

As it was still snowing a little and the wind was increasing, it was decided that the other events—steeplechase, with burden consisting of two trailers over very rough course, and the parade—could not be held. We broke camp, spending the evening, as well as the following Sunday and Monday, distributing

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A. NATIVE VILLAGE, SITKA.

B. NATIVE VILLAGE, TANANA, ON THE YUKON RIVER.

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A. ESKIMO BOAT, ARCTIC OCEAN.

B. ST. LAWRENCE ISLANDERS STRETCHING AND SCRAPING WALRUS SKIN FOR USE IN COVERING BOAT, ROOF, OR FLOOR.

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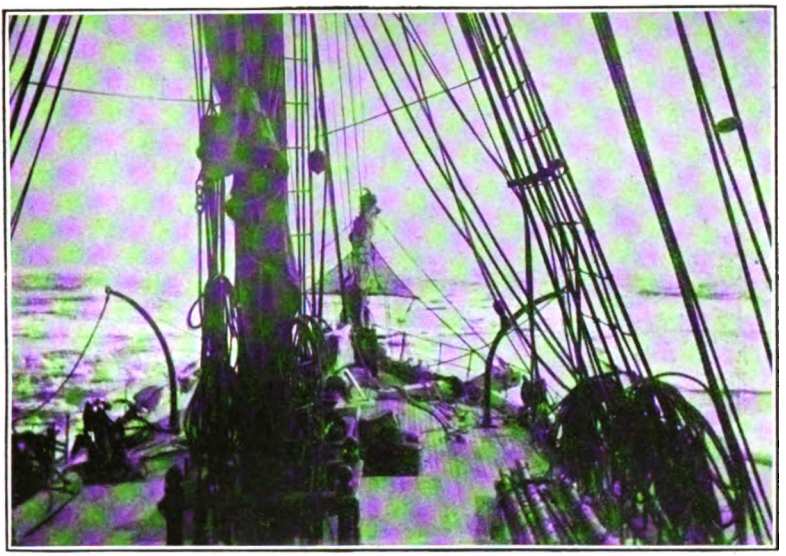
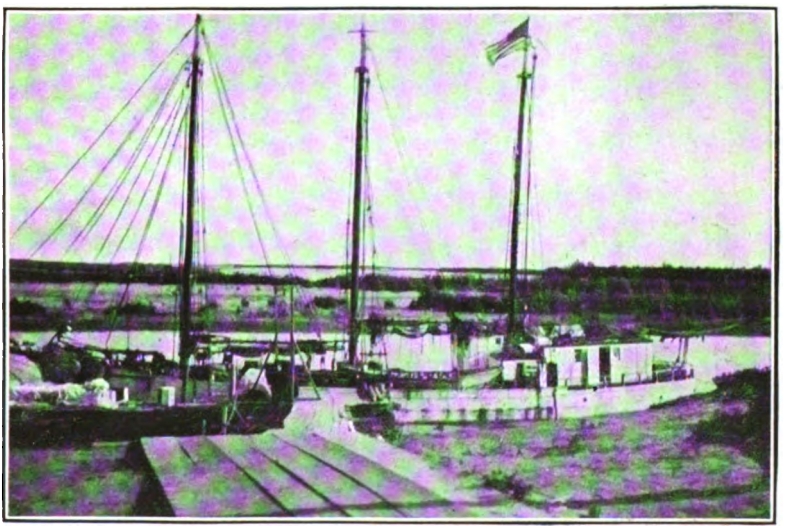


A. THROUGH THE COURTESY OF THE TREASURY DEPARTMENT, THE U. S. S. BEAR CARRIES FROM NOME, THROUGH THE ICE FLOES OF THE ARCTIC OCEAN, THE TEACHERS AND SUPPLIES FOR THE REMOTEST SCHOOLS.



B. THE SUPPLY SHIP ON ITS ANNUAL VISIT TO BETHEL, ON THE KUSKOKWIM RIVER, IN WESTERN ALASKA.

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prizes and discussing reindeer and all subjects pertaining to the welfare of the Eskimos.

John Anakartuk, Teller, was given a fountain pen by Supt. Shields for his services as interpreter. Several of the young men assisted as interpreters, but Anakartuk worked almost continually and did his work exceptionally well.

Sunday and Monday, Government school, Igloo. Lack of space and the inability of the interpreters to interpret all of the native speeches, make it impossible to give more than an idea of what was said. Supt. Shields talked for two hours on the reindeer enterprise, showing by statistics what had been done in each herd on Seward Peninsula. As he showed the increase, decrease, per cent of females fawning, number of bulls, and other statistics of each herd, the delegates and owners of that herd would show added interest, and after Supt. Shields had closed, they would state why results had not been as good as they should, and then would mention some plan for the coming year. These plans will be tried out and the results given at the next fair.

Speeches were also made by Rev. T. L. Brevig, Mr. Hunnicutt, Mr. Replogle, Mr. Johnson, Mr. Lomen, and all of the delegates. The natives were very much pleased to hear from Mr. Lomen that his company would not sell meat at the local markets, but intended to establish a demand for it in the States. Mr. Brevig said that in his opinion bulls should not be over 4 years of age for best results. Mr. Replogle showed how cooperation and kindness among the men of a reindeer community would show in the care that each would take of the others' deer. They should work for the good of all and forget their grievances. Mr. Hunnicutt and Mr. Johnson, as did the others, brought out many pertinent matters, showing how the men could profit by what they had learned at the fair, advising them to choose their own committees, make rules, decide on number of bulls, what to pay apprentices, etc.

The Eskimo delegates, in closing, mentioned some of the things that they had learned at the fair. One said, "I feel as if I had been in a big sleep and was just waking up." Another, "We'll be in the ring next year." All expressed their appreciation for what had been done.

Delegates taking part in the Igloo fair: Council: Simon Mukpeadelook, Morfie. Deering: Okok Thomas, Wheeler Douglas, Frank Wells, Harry Karmun, Leonard Pooto. Shishmaref: John Sinnok, Allakeak. Igloo: Oquillook, Abloowallok, Luke, Tuck, Issuwenock. Nome: Tautuk, Amuktoolik. Teller: Emakleena, Aseearenna, Anakartuk.

Natives from many villages on Seward Peninsula were present and took a great interest in the fair. Some of the best workmanship exhibited was that of the visiting natives. All took a hand and helped make the fair a success. Several white people visited the fair and were agreeably surprised. The following is a list of the prizes, the donors, and the winners: Meat saw, Pacific Coast Storage Co., Igloo delegates; rifle and two boxes cartridges, Independent Meat Market, Jack Kowmok; heavy lasso, Darling & Dean Co., Simon Mukpeadelook; butcher knife, Darling & Dean Co., Tautuk; tool knife, Chester, Chinik, Morfie; Ingersoll watch, Chester, Chinik, Harry Karmun; match safe, Chester, Chinik, Fred Mosquito; Gem razor, Butler, Mauro Co., Topkok Oquillook; box 30-30 cartridges, G. P. Goggin, Okok Thomas; box 30-30 cartridges, Carleton Hardware Co., Okok Thomas; box 30-30 cartridges, Carleton Hardware Co., Jim Eyak; thermos bottle, Lomen & Co., Abloowallok; fountain pen, Lomen Bros., Wheeler Douglas; pair wool gloves, Nonpareil Store, Tautuk; pair gloves, McLain, Hot Springs, John Sinnok; pair gloves, McLain, Hot Springs, Harry Karmun; muffler, McLain, Hot Springs, Allakeak. Carl Lomen

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donated a compass, which was won by Fred Thomas. Supt. Shields donated a compass, which was won by Okok Thomas.

On Sunday, January 17, the Igloo delegates left for their herds, which are scattered within a radius of 20 miles of Igloo. Of course the leave-taking was prolonged, for the delegates from other districts were still at Igloo awaiting the moderation of the weather. Toward evening the wind died down, the mountains in the distance became visible, and plans were made for leaving in the morning. The Igloo boys left for their herds singing "Igloo's in the ring, boys," and "Meet me at the fair."

On Monday, January 18, at 10 a. m., in company with Rev. T. L. Brevig and the Teller delegates, we left Igloo for the Teller mission herd on the Ageeapuk River. The only accident occurring during the fair happened while on the trail. One of the Teller boys in stopping his sled was suddenly struck near the eye by the horn of his deer, receiving a very nasty wound, injuring the eyeball. Fortunately, Supt. Shields had bandages with him and the wound was dressed. A dog team which happened to be passing was hailed and the man was sent direct to Teller mission, where he could be cared for by Miss Kenly, who had started earlier in the morning with Miss Brevig. He arrived at the mission the next day and received professional aid, which undoubtedly saved his sight, and when we arrived there two days later he was recovering his sight and the swelling in the eyeball had disappeared.

We arrived at the mission herd at 7.30 p. m. In the evening talks were had with the reindeer men at the camp. The next day, Tuesday, we visited the herd and sled deer were caught for some of the boys who were to accompany us to Teller mission. We left camp at 4.30 p. m. and arrived at Segewana's cabin, on Grantley Harbor, at 8 p. m., where we spent the night, 13 people in one small room. Leaving this cabin at 9.30 the following morning, we reached Teller mission at 12.30 p. m. Thursday and Friday the school and mission were visited and plans were made for the year's work for school, mission, and herd.

Saturday, January 23, Supt. Shields and Miss Harriet Kenly left for Wales, accompanied by two guides, Supt. Shields en route on his northern trip and Miss Kenly on a professional visit to the cape, where she remained a week, and then returned to Nome by means of a dog team.

Shortly after the northern-bound party left, Mr. Lomen and Mr. Johnson, accompanied by Tautuk, left for Nome via Teller, Gold Run, and Sinuk. The weather moderated, and Sunday evening a heavy rain commenced to fall, which made it exceedingly difficult and unpleasant to travel dressed in furs. The trail was greatly improved by the mercury dropping and the snow freezing solid; but this made it impossible for the deer to feed, and when we arrived at Sinuk on Sunday at 9.30 p. m. our deer were almost played out.

The Simuk school was visited Monday morning, after which we left for Nome, After traveling about 10 miles a place was found where the deer could get a little moss, and we left Tautuk here with the deer for the night. Walking in, we reached Nome at 8 p. m., and Tautuk came in with the deer the following morning.

SECTION 5.—RECENT ACTS OF THE ALASKA TERRITORIAL LEGISLATURE OF IMPORTANCE TO THE NATIVES OF ALASKA.

AN ACT To define and establish the political status of certain native Indians within the Territory of Alaska.

Be it enacted by the Legislature of the Territory of Alaska:

SECTION 1. Every native Indian born within the limits of the Territory of Alaska, and who has severed all tribal relationship and adopted the habits of a

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civilized life in accordance with section 6, chapter 119, 24 Statutes at Large, 390, may, after the passage and approval of this act, have the fact of his citizenship definitely established by complying with the terms hereafter set forth.

SEC. 2. Every native Indian of the Territory of Alaska who shall desire a certificate of his citizenship shall first make application to a United States Government, Territorial, or municipal school, and shall be subjected to an examination by a majority of the teachers of such school as to his or her qualifications and claims for citizenship. Such examination shall broadly cover the general qualifications of the applicant as to an intelligent exercise of the obligations of suffrage, a total abandonment of any tribal customs or relationship, and the facts regarding the applicant's adoption of the habits of a civilized life.

SEC. 3. Any native Indian of the Territory of Alaska who shall obtain a certificate in accordance with section 2 of this act, which certificate shall set forth that a proper examination has been duly held and the applicant found to have abandoned all tribal customs and relationship, to have adopted the ways and habits of a civilized life, and to be properly qualified to intelligently exercise the obligations of an elector in the Territory of Alaska, shall thereupon obtain an indorsement upon said certificate by at least five white citizens of the United States who have been permanent residents of Alaska for at least one year, who were not members of the examining board as provided in section 2, to the effect that such citizens have been personally acquainted with the life and habits of such Indian for a period of at least one year and that in their best judgment such Indian has abandoned all tribal customs and relationship, has adopted the ways and habits of a civilized life, and is duly qualified to exercise the rights, privileges, and obligations of citizenship.

SEC. 4. Upon securing such certificate, as provided by sections 2 and 3 of this act, properly signed in ink, the applicant shall forward the same, together with an oath duly acknowledged to the effect that such applicant forever renounces all tribal customs and relationships, to the United States district court for the division in which the applicant resides, praying for the granting of a certificate of citizenship.

SEC. 5. Upon receiving such application the judge of the district court shall set a day of hearing on such application which shall not be less than 60 days from the date of receipt of such application, whereupon the clerk of the district court shall post a notice in his office containing the name of the applicant and the facts set forth in his application, and the date set for the hearing upon the application, and shall immediately forward a copy of such notice to the applicant, whereupon the applicant shall post such notice or a copy thereof in a conspicuous place at the post-office nearest to his or her residence.

SEC. 6. Upon approval of such application by the judge of the United States district court for the division in which the applicant resides, the said judge shall issue a certificate certifying that due proof has been made to him that the said applicant is "an Indian born within the Territorial limits of the United States, and that he has voluntarily taken up, within said limits, his residence separate and apart from any tribe of Indians therein, and has adopted the habits of civilized life." Said certificate, when presented in court or otherwise, shall be taken and considered as prima facie evidence of the truth of the statements therein contained.

Approved, April 27, 1915.

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AN ACT To provide for local self-government in certain native villages in the Territory of Alaska.

Be it enacted by the Legislature of the Territory of Alaska:

SECTION 1. That any village in the Territory of Alaska, whose inhabitants are members, or descendants of members, of the Thlinget, Tsimpsean, or Hydah Indian Tribes, or other native tribes of Alaska, having not less than 40 permanent inhabitants above the age of 21 years, may form a self-governing village organization for the purpose of governing certain local affairs, as hereinafter described and in the manner hereinafter provided.

SEC. 2. A petition praying for such village organization shall first be presented to the commissioner, ex officio probate judge, for the recording district in which such village is situated, which petition shall be signed by at least 15 adult members or descendants of members of said Thlinget, Tsimpsean, or Hydah Indian Tribes, or other native tribes of Alaska, who are bona fide residents of such village, and shall specify the boundaries and the number of inhabitants of the proposed organized village and shall specify the name by which such village is to be known, and such other facts as may tend to show good grounds for such organization. The commissioner, ex officio probate judge, shall thereupon fix a time and place for considering said petition, which time shall not be less than 15 nor more than 30 days after the date of such order. At the time and place fixed for considering said petition, the commissioner, ex officio probate judge, shall give a reasonable hearing to those who are in favor of, and those who are opposed to the same, and if he is satisfied that it is to the best interests and welfare of such village to be so organized, he shall, by an order, so judge; and he may, by the order, change or modify the proposed boundaries, which shall in no case embrace more than 640 acres. He shall also, by said order, designate the name and the boundaries of the proposed organized village, and the time and place, when and where, an election shall be held to determine whether the people of the village desire to be so organized; and he shall also, by said order, appoint three qualified residents of such village to act as judges of such election. A copy of said order shall be posted at three public places within the limits of the proposed organized village, at least 15 days prior to the day of election, and such posting shall be deemed a sufficient notice of such election. In case said commissioner, ex officio probate judge, shall refuse to consider such petition, or after considering the same, shall refuse to make such order, or any order hereinafter provided for, the said petitioners may appeal from such action by the commissioner to the judge of the district court for the division in which said village is situated, in the manner provided by law for appeals from justice's courts.

SEC. 3. That the qualifications of an elector hereunder shall be as follows: He or she shall be a member, or descendant of members, of the Thlinget, Tsimpsean, or Hydah people, or people belonging to other Alaska Indian tribes, and shall be over 21 years of age, and shall have resided within the limits of the village proposed to be organized for a period of six months.

SEC. 4. That said election shall be by written or printed ballot in the following form:

"For organization of the village (name of village proposed to be organized) ---------- ( ).

"Against the organization of the village of (name of village proposed to be organized) ---------- ( )."

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At the same election by separate ballot, 12 of the said members of the village shall be elected as councilmen and said council shall have the following powers:

To make rules and regulations for the conduct of its own proceedings;

To elect from its membership a mayor, a secretary, a municipal magistrate and a treasurer, all of whom shall serve without pay; and to prescribe their duties and the rules by which they shall be governed;

To pass such ordinances for the government of the village as shall not be in conflict with Federal or Territorial laws, and shall pass ordinances to prevent the practice of witchcraft;

To levy and collect a poll tax not exceeding $3 per annum on all able-bodied male residents above 21 and under 50 years of age;

To levy and collect a tax on dogs, and a general tax not to exceed 1 per cent per annum on assessed valuation of houses, boats, and canoes (but all household goods shall be exempt from taxation);

To appoint constables and prescribe powers and duties as it may deem necessary;

To provide for the punishment of any violation of its ordinances by fine or imprisonment in the village jail or both such fine and imprisonment, but no such fine shall exceed $20, nor any such imprisonment five days;

To provide for necessary street improvements, water supply, fire protection, lights, public health, and relief of destitution and indigents;

To fill vacancies in the council until the time of next election, and to provide rules and regulations governing place and conditions of the annual election: *Provided*, That public notice of said election shall be given at least 10 days prior to such election.

The commissioners, ex officio probate judges, shall for acts rendered in pursuance of this act receive the same fees and commissions as are prescribed for similar services when acting as probate judges.

Approved, April 21, 1915.

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BULLETIN OF THE BUREAU OF EDUCATION.

[For numbers prior to 1916 see leaflet, "List of Available Publications, Bureau of Education," which may be had on application.]

1916.

No. 1. Education exhibits at the Panama-Pacific International Exposition. W. Carson Ryan, jr.
No. 2. Agricultural and rural education at the Panama-Pacific International Exposition. H. W. Foght.
No. 3. Placement of children in the elementary grades. K. J. Hoke.
No. 4. Monthly record of current educational publications, January, 1916.
No. 5. Kindergarten training schools.
No. 6. Statistics of State universities and State colleges.
No. 7. Monthly record of current educational publications, February, 1916.
No. 8. Reorganization of the public-school system. F. F. Bunker.
No. 9. Monthly record of current educational publications, March, 1916.
No. 10. Needed changes in secondary education. Charles W. Eliot and Ernest Nelson.
No. 11. Monthly record of current educational publications, April, 1916.
No. 12. Problems involved in standardizing State normal schools. C. H. Judd and S. C. Parker.
No. 13. Monthly record of current educational publications, May, 1916. 5 cts.
No. 14. State pension systems for public-school teachers. W. Carson Ryan, jr., and Roberta King.
No. 15. Monthly record of current educational publications—Index, February, 1915–January, 1916. 5 cts.
No. 16. Reorganizing a county system of rural schools. J. Harold Williams.
No. 17. The Wisconsin county training schools for teachers in rural schools. W. E. Larson.
No. 18. Public facilities for educating the alien. F. E. Farrington.
No. 19. State higher educational institutions of Iowa.
No. 20. Accredited secondary schools in the United States. Samuel P. Capen.
No. 21. Vocational secondary education.
No. 22. Monthly record of current educational publications, September, 1916.
No. 23. Open-air schools. S. P. Kingsley and F. B. Dresslar.
No. 24. Monthly record of current educational publications, October, 1916.
No. 25. Commercial education. Glen Levin Swiggett.
No. 26. A survey of the educational institutions of the State of Washington.
No. 27. State higher educational institutions of North Dakota.
No. 28. The social studies in secondary education. Arthur W. Dunn.
No. 29. Educational survey of Wyoming. A. C. Monahan and Katherine M. Cook.
No. 30. University training for public service.
No. 31. Monthly record of current educational publications, November, 1916.
No. 32. Manual arts and home-making subjects in 156 cities. J. C. Park and C. H. Harlan.
No. 33. Registration and student records for smaller colleges. B. F. Andrews.
No. 34. Service instruction of American corporations. Leonhard F. Fuld.
No. 35. Adult illiteracy. Winthrop Talbot.
No. 36. Monthly record of current educational publications, December, 1916.
No. 37. Cooperative system of education. C. W. Park.
No. 38. Negro education. Volume 1. Thomas Jesse Jones.
No. 39. Negro education. Volume 2. Thomas Jesse Jones.
No. 40. Gardening in elementary city schools. C. D. Jarvis.

[Continued on p. 3 of cover.]

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DEPARTMENT OF THE INTERIOR
BUREAU OF EDUCATION

BULLETIN, 1916, No. 48

RURAL SCHOOL SUPERVISION

BY

KATHERINE M. COOK and A. C. MONAHAN
BUREAU OF EDUCATION

WASHINGTON
GOVERNMENT PRINTING OFFICE
1917

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LETTER OF TRANSMITTAL.

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION,
Washington, February 12, 1917.

SIR: In the early history of this country, and of each of the States, when the population was sparse and communities widely separated, each school district and each school had an independent existence, with little or no relation to any other school or district or any larger unit. As population became more dense, as communities coalesced, as appropriations and expenditures for schools became larger, and as the larger units of county and State began to feel an interest in and responsibility for the education of the children of all their separate communities, the need for State and county officers for business administration was felt. Later still, the demand for efficiency in the schools and for the best possible use of money expended for schools and of the time of the children in school gave rise to a demand for expert supervision by men and women competent to give to all teachers, and especially to young and inexperienced teachers, help in those phases of their work in which they need it most. As a result, State, county, district, and township superintendents are now chosen with reference to their knowledge of teaching more than formerly; and in many States they are given the assistance of special supervisors. So valuable have been the results of the work of these expert supervisors in those places where it has been tried under favorable conditions that there is now a general desire for information on the subject. I therefore recommend for publication as a bulletin of the Bureau of Education the accompanying manuscript transmitted herewith on Rural School Supervision, prepared at my request by Katherine M. Cook and A. C. Monahan of the Rural Education Division of this bureau.

Respectfully submitted.

P. P. CLAXTON,
Commissioner.

The SECRETARY OF THE INTERIOR.

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RURAL SCHOOL SUPERVISION.

I. ORIGIN AND DEVELOPMENT OF SCHOOL SUPERVISION.[1]

According to Hinsdale the "American superintendent of schools is an officer sui generis. He is native to the soil." He occupies a position wholly unlike that of any scholastic officer found in any country of Europe, and "combines within himself the characters of a minister of public instruction, an inspector of schools, a licenser of teachers, and a professor of pedagogy." His duties, whether defined by law, as is the case with most State and county supervisory officers, or delegated to him directly by the school board, as in case of many city superintendents, are numerous and complex.

The supervisory idea, as it is now understood, goes back probably not more than 50 or 60 years. It is only 80 years since the first full-time city superintendent was employed in the United States.

The present idea of supervision has come as an evolution, not from the function of teaching but from that of the school committee or board. In the early part of the nineteenth century, as the complexity of the city-school systems increased and the demands on the boards became more specialized and more numerous, the functions of the boards were delegated to smaller units, to subcommittees, and finally to paid officers, the school superintendents. "The power to supervise the school or schools, lodged by law in the town committee or district board, is the primal cell from which the school superintendency has been evolved."[2]

In the early colonial history of Massachusetts the general supervision of the schools was assigned first to the town itself, then to the selectmen, the town administrative officers. These gave way in 1789 to the school committee as an official body for conducting school affairs. A town committee to inspect schools had been provided in many towns prior to 1789. In that year it was legalized and in 1827 was made compulsory. This was the date when the local school districts were given authority to select and hire their own teachers. Later these school committees elected one of their own number to act as supervisor of common schools at a stated sum per diem. This officer, however, received a small amount only, was a business or professional man with many other duties and usually with no apti-

[1] This brief historical sketch is included to give a general idea of the beginning and growth of local supervision.

[2] Hinsdale: *Studies in Education.*

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tude or training for the work of supervision, and was in many cases as unsatisfactory as the selectmen under the older system. Later the school committees were permitted to engage for this work some one not a member of the board. Springfield employed a superintendent of schools in 1840. It was not until 1851, however, when Boston engaged a superintendent of schools, that the position of city superintendent became a permanent one in Massachusetts. In 1888 a law was passed in Massachusetts which provided for supervision in the smaller towns by permitting them to join in sufficiently large numbers to warrant the engagement of a professional supervisor who could devote all of his time to the schools. The law made possible professional supervision for rural communities.

In the meantime in several States the office of State superintendent had become a permanent institution with rather clearly defined duties, though it has had its vicissitudes and has been established and abolished and reestablished in several States. The duties, powers, and responsibilities of the office have changed many times in the course of its development.

STATE SUPERVISION.

The idea of State supervision and the office of State superintendent developed earlier and more rapidly than that of rural or city supervision. New York in 1812 passed the first act contemplating a permanent State system and creating the office of State superintendent of common schools. Gideon Hawley, who is described as a man of unusual ability and attainments, "the Horace Mann of New York," [1] received the appointment, holding the office for nine years, when it was abolished, the secretary of state becoming ex officio superintendent of schools.[2] The office was revived in 1854. In the meantime 15 other States had established a State office of superintendent of schools, though not always under that name. These States, with the dates of establishment of the office, are as follows:

Maryland, 1823 (abolished two years later).
Vermont, 1827.
Pennsylvania, 1834.
Tennessee, 1836.
Michigan, 1836.
Massachusetts, Kentucky, and Ohio, 1837.
Missouri and Connecticut, 1839.
Iowa, 1841, abolished and revived twice before 1864.
Rhode Island, 1843.
New Jersey, 1845.
New Hampshire and Maine, 1846.
Wisconsin, 1849.

[1] Fitch: *History of Common School Education in New York.*
[2] Boone: *Education in the United States,* p. 101.

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The other States have followed the example set by these 17, and now there is a department of education in every State. Delaware was the last to make such a provision, when in 1913 a commissioner of education was appointed. The chief State school officers serve under many different titles, such as State superintendent of public instruction, State commissioner of education, and State superintendent of education. Many States for a time combined educational duties with those of other State officers already provided, as, for example, with the State treasurer in Colorado, with the secretary of state in New York, and with the governor in Oregon. Such practices are now a thing of the past, although State education officers are often ex officio members of State boards concerned with affairs other than education, such as land boards, boards of pardons, etc.[1]

Special assistants to the State superintendent, devoting their entire time to rural school work, have been provided in about one-half of the States. They work under various titles—in the North and West usually as rural school inspectors and in the South formerly as State supervisors of rural schools, but now as "rural school agents." The appointment of such officers in the North came about in most instances through the passage of State legislation granting special State aid to rural schools meeting certain specified conditions. Inspection was therefore necessary. In the South the appointment of the State supervisors of rural schools was due to the General Education Board and the Southern Education Board, and the men were appointed to assist in establishing better rural schools. Their work was advisory rather than supervisory. Information concerning the duties and functions of the State rural school officers is given later.[2] Following is a list of the States where such officers are employed:

Alabama: 1 Rural school agent for white schools.
1 Rural school agent for colored schools.
Arkansas: 1 Rural school agent for white schools.
1 Associate rural school agent for colored schools.
California: 1 Commissioner of elementary schools.
Florida: 2 Rural school inspectors.
Georgia: 1 Rural school agent.
3 State supervisors of rural schools.
1 Rural school supervisor for Negroes.
Illinois: 2 Supervisors of country and village schools.
Iowa: 1 Inspector of rural and consolidated schools.
Kansas: 2 Rural school supervisors.
Kentucky: 1 Supervisor of rural elementary schools for whites.
1 Supervisor of rural elementary schools for colored.
Louisiana: 3 Rural school supervisors.
1 Supervisor of Negro rural schools.
Massachusetts: 1 Agent of State board of education for rural schools.

[1] Bu. of Educ., Bul., 1915, No. 5: *The Organization of State Departments of Education.*
[2] See pages 39 to 47.

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Michigan: 1 Rural school inspector.
Minnesota: 1 Rural school commissioner.
1 Rural school supervisor.
Mississippi: 1 Rural school agent.
1 Supervisor of Negro rural schools.
Missouri: 1 Rural school inspector.
Montana: 1 Rural school inspector.
Nebraska: 1 Rural school inspector.
North Carolina: 1 State agent for rural schools for whites.
1 State agent for rural schools for colored.
North Dakota: 1 Rural school inspector.
Oklahoma: 1 Rural school inspector.
South Carolina: 1 State supervisor of elementary rural schools.
Tennessee: 1 State rural school agent for white schools.
Texas: 2 Rural school supervisors.
Virginia: 1 State rural school agent for white schools.
1 State rural school agent for colored schools.
West Virginia: 1 Supervisor of rural schools for whites.
1 Assistant supervisor of rural schools for Negroes.
Wisconsin: 2 Rural school inspectors.

LOCAL SUPERVISION.

The origin and growth of the idea of local supervision for county and township schools is more difficult to trace. As previously stated, it began in Massachusetts with the school committee, and developed finally into the township professional supervisory officer. The early attempts at local rural supervision were confined almost wholly to the management and investment of funds and other services concerned with the material organization of the school. Then came the idea of inspection and visitation and sometimes examination of teachers and pupils. The fact that the duties of the early committees were adopted almost literally by the later township and county supervisors shows the evolution of the office. The present idea of the duties of supervisory officers (especially in connection with county and township supervision)—the idea of trained professional supervisors—has developed as additional functions have been forced upon the board. The necessity of employing teachers with educational qualifications and of visiting schools, not only for inspection and examination but for directing methods of teaching, providing courses of study, etc., has brought about professional supervision.

In New York laws were passed in 1814 providing a suitable number of persons, not to exceed six, to act as inspectors of common schools in each township. In Missouri as early as 1824 the civil commissioners were required to appoint "'visitors to the schools,' nine in each district, who were to visit the schools once in three months to examine teachers, grant licenses, and exercise general supervisory powers. Ten years later three trustees took the place of the nine with similar duties."[1]

[1] Boone: *Education in the United States.*

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Ohio in 1825 anticipated a general plan of supervision by providing for the certification of teachers by three suitable persons to act as examiners, appointed by the county court of common pleas, who were also to visit the schools and give advice relative to discipline and management of the school.[1] Under provision of the law of 1838 the township clerk was virtually the superintendent of schools. with considerable authority.[2]

In 1827 Vermont provided for appointment of town committees, whose functions were similar to those of the committees in Massachusetts. New Hampshire, in 1829, provided for similar supervision.

In Michigan a law passed in 1828 provided that a board of five, designated as "inspectors of common schools," be appointed to examine and license teachers and to perform the function of supervision.[3]

The Pennsylvania law of 1834 placed the certification of teachers and inspection of schools in the hands of two inspectors for each school district. These inspectors were in a measure county officers, as they were privileged to meet in a body to establish rules for conducting teachers' examinations and for granting certificates which should be binding on all the inspectors of the county.[4]

In North Carolina, in 1839, counties were directed to divide themselves for educational purposes into six disticts, over all of which should be appointed not less than five superintendents, and for each of whose school corporations should be chosen by the county court not less than three school committeemen.

It will be noticed that the duties of all of these officers corresponded quite as nearly to those of present-day school directors or trustees or board members as to those of county superintendent. There is discernible, however, a tendency toward differentiation and delegation of duties to fewer officers. Allowing for this lack of specification of duties, the table following shows in a general way the extent and growth of the supervision idea by supervising school boards in counties, towns, and townships before 1839:

Massachusetts	1789
New York	1814
Missouri	1824
Ohio	1825
Vermont	1827
Michigan and New Hampshire	1828
Pennsylvania	1834
Tennessee, Vermont, and Mississippi	1837
North Carolina	1839

[1] Burns: *Educational History of Ohio*, p. 119.
[2] Dexter: *Hist. of Educ. in the United States*, p. 106.
[3] Hoyt, C. O., and Ford, R. Clyde: *A Study of Educ. in the Northwest.*
[4] Yetter: *Educational System of Pennsylvania.*

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County superintendent.—The next step takes us to the county superintendent as a regular county officer elected by the people or appointed by the county court or a county board.

New York was the first State to appoint county superintendents of schools. The office was established in 1841, abolished in 1847, and revived again in 1856.

> During six years preceding 1847 there existed a body of salaried county superintendents who were nominated by the board of supervisors for two years at a time and whose business it was to inspect the schools, to endeavor to promote the system of popular education, and to decide on all disputes concerning the schools previous to their being referred to the State superintendent.[1]

Though the office was abolished in 1847, circumstances having conspired to make it unpopular, a township superintendent survived whose duties consisted in—

> superintending the schools, affording information, and making regulations relative to the various branches of instruction, to disciplinary matters, etc. He thus holds much the same position as the school committee in Massachusetts.[1]

Dexter, in his History of Education, says:

> Previous to 1851 four other States had followed the New York plan, and all the newer States have had the office since the beginning of their school legislation.

Siljestrom, writing in 1853, says that in Vermont the county superintendents are elected by the county court and the town superintendents elected by the congregations.[2]

In Maine, county supervisors of schools were authorized in 1869.

Ohio in 1847 made school supervision optional in counties which should provide for the payment of salary sufficient to secure a superintendent. Only three counties availed themselves of the provision.[3]

Arkansas, in the law passed in 1853, provided for a common-school commissioner who should be elected at large and have general supervision of the county schools.[5]

The Pennsylvania law of 1854 created the office of county superintendent who was to be elected for three years at a convention of all the school directors and "who is to be a person of literary and scientific requirements and experience in the art of teaching."[5]

In California, by provision of the law of 1852, the county treasurer was ex officio superintendent, but his sole duty was to apportion funds.[6] In 1855 the school law was reorganized and the office of county superintendent of schools established, the superintendent to be elected by popular vote.

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[1] Siljestrom: *Educational Institutions of the United States*, p. 95.
[2] Ibid, p. 104.
[3] Burns: *Educational History of Ohio*, p. 119.
[4] U. S. Bu. of Educ. Bul., 1912, No. 27.
[5] Yetter: *Educational System of Pennsylvania.*
[6] Sweet: *Public Education in California.*

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Alabama provided, in 1856, for a county superintendent, elected by the people, to have general supervision of the schools of the county, whose duty it was to visit the schools at least once a year.[1]

Michigan provided for county superintendents in 1867, but eight years later the action was reversed.[2]

Tennessee, along with a majority of the Southern States, established the county system of supervision in the reorganization which followed the reconstruction period.

The following table relates to the establishment of the office of county superintendent in eight States, showing date and method of appointment:

New York.....1841; superintendent appointed (office abolished six years later).
Ohio.....1847; optional law.
Arkansas.....1853; superintendent elected by popular vote.
Pennsylvania.....1854; superintendent elected by school directors.
California.....1855; superintendent elected by popular vote.
Alabama.....1856; superintendent elected by popular vote.
Michigan.....1867; law repealed six years later; superintendent probably elected.
Tennessee.....1867; superintendent chosen by local directors assembled for that purpose.

City supervision.—Chamberlain, in *Growth and Responsibility of City School Superintendent*, says that the true history of city school supervision runs back to 1837, and that Buffalo, N. Y., was the first municipality to engage a city superintendent. This statement is confirmed by Boone and Dexter, as well as by the *Report on the School System of Buffalo*, published by the New York State Department of Education, from which the following is quoted:

> This act (referring to the charter of 1837) relating to the city of Buffalo was the first law enacted by any State in the Union creating an officer for the supervision of the schools of a city. This officer has come to be known throughout the country as city superintendent of schools.

However, Dexter says this:

> Louisville, Ky., in 1834 appointed a school agent whose duty it was to visit all schools each quarter and report on their condition. His duties were soon enlarged and by 1837 corresponded in general to those of the present city superintendent.

The exact nature of the duties of these early city superintendents is in doubt. According to Martin, the idea of city supervision in New England was first put into practice in 1839 in the Providence, R. I., schools and was suggested there by the factory system of the State.

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[1] U. S. Bu. of Educ. Bul., 1915, No. 12.
[2] Dexter: *Hist. of Educ. in the United States*, p. 118.

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Out of the necessities of broadened and more complex educational systems there has been evolved a new educational function, that of professional supervision, and a new organ for the function, the superintendent of public instruction.[1]

Martin asserts that city supervision in Massachusetts began in Springfield in 1840, yet had no permanent place in the State until Boston adopted the plan in 1851. He adds: "Soon a State law authorized it, and it has slowly worked its way into universal favor in the cities and larger towns."

Whatever uncertainty may exist as to its initiation, it is very certain that the idea of centralized and specialized school work with one man in charge grew rapidly, and that almost simultaneously, in very different parts of the country, cities began to appoint superintendents of schools.

The following table, taken from Dexter, indicates the growth of the movement for city superintendents:

Buffalo, N. Y	1837	Newark, N. J	1853
Louisville, Ky	1837	Brooklyn, N. Y	1853
Providence, R. I	1839	Cleveland, Ohio	1853
Springfield, Mass	1840	Chicago, Ill	1854
New Orleans, La	1841	St. Louis, Mo	1854
Rochester, N. Y	1843	St. Joseph, Wis	1854
Columbus, Ohio	1847	Indianapolis, Ind	1855
Syracuse, N. Y	1848	Worcester, Mass	1855
Baltimore, Md	1849	Milwaukee, Wis	1859
Cincinnati, Ohio	1850	Albany, N. Y	1866
Boston, Mass	1851	Kansas City, Mo	1867
Gloucester, Mass	1851	Washington, D. C	1869
New York, N. Y	1851	Denver, Colo	1872
San Francisco, Cal	1852	Scranton, Pa	1877
Jersey City, N. J	1852	Philadelphia, Pa	1883

Now, nearly every city and town of 2,500 population has its superintendent of schools, devoting his entire time to supervision and administration, or a supervising principal devoting all or part of his time to supervision and administration.[2] In the larger cities many assistants are employed. This is indicated by the following table:

Supervision of schools in cities.

Cities.	Number of cities.	Number of supervisory officers.	Number of cities not reporting.
Cities of 100,000 population and over	50	815	.....
Cities of 25,000 to 100,000 population	183	884	.....
Cities of 10,000 to 25,000 population	374	1,011	35
Cities of 2,500 to 10,000 population	625	939	59

[1] Martin: *Evolution of the Pub. Sch. System in Mass.*

[2] See Educational Directory, 1916–17 (Educ. Bull., 1916, No. 43).

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The city superintendent is becoming more and more the actual head of the city school system. Boards of education are leaving with the city superintendent practically the entire management of the schools. Of cities reporting to the Bureau of Education in answer to a special inquiry relative to the powers of the city superintendent, 73.5 per cent report that the superintendent nominates all teachers, 38 per cent that he selects the teachers, 66 per cent that he recommends changes in salaries, and 73.5 per cent that textbooks are adopted upon his recommendation. Another indication of the increasing confidence placed in the city superintendent and of the increasing importance of the position is shown by the fact that 44 per cent of the city superintendents received an increase in salary in 1914 over 1913, and in 83 cases the length of term of the superintendent was increased.

The city superintendents in practically all cities in the United States are appointed officers, the appointing body in nearly all cases being the school board. An exception is San Francisco, where the city superintendent, who is at the same time county superintendent, is elected by popular vote. Buffalo, N. Y., elected its city superintendent until 1916, but under the new city charter and commission form of government the city superintendent is appointed by the council, on the nomination of the mayor.

The supervisory function is a direct outgrowth of the necessity of specialization and of fixing duties belonging to school trustees in the hands of fewer people. Logically, therefore, the superintendent of schools should be an appointive officer and, logically, also, the unit of supervision and of administration should be the same. The present state of affairs in many of the States which completely divorces in rural territory the units of supervision and of administration for school purposes is forcing an unnatural and illogical condition, and to it may be ascribed much of the inefficiency of the rural-school system.

The importance of supervision in school progress of the day can scarcely be overemphasized. Good supervision may be looked upon as the dominant factor in successful school systems, and much of the progress in education to-day, especially in cities, is due to the wise policy and broad viewpoint of the superintendent.

Rural supervision—a comparison.—However important supervision may be in cities, it is vastly more important in the country. Statistics from a recent investigation, made by the Bureau of Education,[1] show that of the rural teachers in the United States, 32.3 per cent have no professional training of any nature. Regarding academic preparation, 4 per cent have not completed the eighth grade

[1] U. S. Bu. of Educ. Bul., 1914, No. 49.

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of the elementary school, and 32 per cent have not completed t high-school course. Only 3.2 per cent have completed a norm school course; 66.2 per cent are teaching eight grades or more; a 66.2 per cent are conducting from 25 to 35 recitations daily. Th average length of time rural teachers remain in one school is 1 months, and the average annual salary is $485. It is evident th teachers in rural schools are poorly paid, are constantly chan ing, are largely untrained, and have no system of grading. Th are teaching an impossible number of classes, and conducting t too many daily recitations to make even fairly good work pos ble. Add to this the isolation, which makes helpful advice and as ciation among teachers impossible or nearly so, and it is difficult t conceive of much improvement in the present conditions witho adequate and efficient supervision, even when omitting considerati of the many contributing circumstances, of which lack of good buil ings and the adjustment of the school curriculum to the industri life of the community are perhaps the most important.

In 1911 an expression of opinion regarding the efficiency of rur supervision, as then conducted, was asked from the departments o education in 34 States having county superintendents. In nearly a of these States the superintendents were elected by popular vote an had no assistants. All of the replies indicated various items i which this system was unsatisfactory. A few of these are quoted:

Counties too large and county superintendent has too much work to g time to supervision.

Not definite enough; officers not professionally equipped for proper supe vision.

Territory too large for effective work.

Too many schools for one to supervise.

Inefficiency of county superintendents.

No deputies allowed, and too much ground to cover.

We need smaller units.

Supervision and supervisors under the county superintendents.

Too much work for county superintendents to do. Each has from 70 300 teachers, 60 to 200 buildings, voluminous office work, and no assistance.

The system of electing county superintendents consists of rotation of offic which very much limits the efficiency of the system.

These quotations show the general tenor of the replies and ind cate a remarkable unanimity of feeling throughout the country as t the inefficiency and inadequacy of the plan for rural supervision.

Table No. 1 reports the results of a study made in 1911–12 in Middle Western State, and shows a comparison of supervision i city and county. Its results are similar to those of other studies i other parts of the United States. It is based on a comparison of th training of teachers, distance traveled, clerical duties of superi

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tendent, etc., with the idea of showing the relative efficiency of city and county supervision. The qualifications and ability of the superintendents are assumed to be alike. The study shows the difficulty that the most capable and conscientious superintendent has in doing justice to the supervision of schools under his jurisdiction. The counties in the table are fairly typical of the State in which they are located, and the conditions, while possibly not typical of other States, at least represent conditions which exist in many States where the county superintendent is elected at large, has no assistance, much territory to cover, and teachers with the lack of training usually found in rural schools. As the contributing circumstances in the cities and counties used in this study were as nearly alike as they are likely to be in the ordinary community, it is probably a fair indication of the supervisory possibilities in city and county under the system above described. The cities are small—of less than 10,000 population; two of the counties are agriculutral and in the third coal mining is the chief industry.

TABLE 1.—*Comparative table of county and city supervision.*

	Case 1.		Case 2.		Case 3.	
	County.	City.	County.	City.	County.	City.
Number of square miles in superintendency district	3,852	70	2,592	18	4,792	15
Number of schools	47	8	50	8	84	7
Number of teachers	100	60	54	50	114	62
Teachers with normal or college training	55	45	9	40	22	37
Teachers without normal or college training	45	15	41	10	92	25
Teachers with no professional training and no previous experience	6	0	14	0	16	0
Teachers with less than high-school training	16	0	6	0	29	0
Number of one-room schools	22	0	46	0	61	0
One-room schools with more than 20 pupils (average daily attendance)	10	All.	6	All.	50	All.
Number of children of school age (census)	3,598	2,000	2,222	2,508	6,754	2,867
Number of children enrolled in schools	3,236	1,800	1,800	1,881	3,781	2,146
Number of school principals	22	8	4	7	20	7
School principals who have one free period for supervision	3	6	0	7	2	7
Number of special supervisors devoting whole time to supervision	0	4	0	3	0	3
Number of visits to each teacher (by superintendent or staff)	(1)	30	(1)	36	(1)	54
Proportion of schools reached by common carrier, per cent	10	All.	14	All.	22	All.
Proportion of schools reached by private conveyance only.....per cent	90	0	86	0	78	0
Estimated number of miles traveled by private conveyance per year	1,500	0	2,500	0	1,500	0
Proportion of time taken up by routine office work, per cent	50	0	66	0	50	0
Average salary of teachers (per month)	$61	$85	$43	$92½	$57½	$114½
Average length of term (in months)	8	9	7	9	7	9½
Daily attendance (compared with total enrollment), per cent	71	80	60	80	76	80
Salary of superintendent (per year)	$1,200	$2,000	$500	$2,500	$2,800	$2,000
Is the superintendent required to have educational qualifications and experience	No.	Yes.	No.	Yes.	No.	Yes.
Does superintendent select textbooks	No.	Yes.	No.	Yes.	No.	Yes.
Is superintendent consulted in the selection of teachers	No.	Yes.	No.	Yes.	No.	Yes.

[1] Less than one.

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It is apparent from the table that the county superintendents in these particular locations are unable to approach real supervision. In the first place, because of extent of territory and number of schools, they are unable to reach every school in the county once a year; second, they are so burdened with office work that they are unable to give any considerable proportion of their time and attention to supervision as a profession; third, salaries are too low and tenure of office too short to insure securing competent educators; fourth, they have no voice in the selection and engagement of teachers who attend meetings and carry out the requests of the superintendent by courtesy largely; fifth, educational qualifications are not required except when the sentiment of the community is so urgent as to influence political parties, the inevitable result being that superintendents in many counties are elected for political qualifications, and only accidentally are they competent teachers or supervisors. That conditions indicated above are not rare and the cases are not isolated ones is indicated by the general summary concerning the work of the county superintendent contained in Tables 3, 4, and 8.

There is a growing feeling that the county superintendent of schools should be a man or woman of training and experience in educational work, that he should be assisted by a competent corps of supervisors, and that he should have clerical assistance for his office work. The county superintendent should be a man of affairs, of strong personality, capable not only of guiding and directing school matters, but of forming public sentiment in all things concerning the educational welfare of the community. In addition to being a trained educator, he should have a keen insight into the needs of country life and how the school can meet them. He needs such a knowledge of rural vocations as will enable him not only to teach and supervise vocational subjects, but to be a leader among the farmers of the community and one with whom they may consult on matters of general community welfare. He should be the one to select books and to compile a course of study that will adjust the school to the vocational and industrial life of the community. There is urgent need for a curriculum that will educate country people for the country as efficiently as city schools educate city people for the city; one that will dignify country life, create and foster a love for the out of doors, and teach in terms of country life; one that is closely related to the life and needs of farm boys and girls and whose practical benefit is sufficiently evident to hold the majority of children in school beyond the legal school age, and enable them to leave the elementary school with the foundation for an education which will lead to the intelligent pursuit of whatever vocation they may select. This kind of education must be furnished to the farmer's children without the ne-

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cessity of breaking up the farm home, as is the case when children are sent away to the neighboring city or town high school or the family moves away from the farm during the school session. The farmer should not be obliged to pay for two school systems, one at home in the form of taxation and one in the near-by city in the form of tuition. The kind of organization, administration, and guidance of public opinion which brings about such results demands a county superintendent with high salary and tenure of office during efficient service.

The county superintendent should have some voice in engaging teachers and fixing salaries; something to say about the expenditure of funds and the amount of tax levied; some advisory control over the kind of buildings and equipment; complete control over textbooks and course of study; some power in enforcing the attendance laws; and he should be a member of or a consulting adviser to the administrative board in control of the county or township schools.[1] The tendency in the most progressive States is toward the realization of a system for rural schools which shall make these advantages possible. Many States are assuming the responsibility of supervision through State appropriations for the payment of salaries for rural supervisors, through special grants to schools which reach a stated degree of efficiency, through certification of rural supervisors, and through the encouragement of special help for industrial supervision in rural schools. These plans will be described later in this bulletin.

[1] The advantages of county organization for administration and supervision are treated in U. S. Bu. of Educ. Bul., 1914, No. 44.

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II. STATUS OF RURAL SUPERVISION.

Throughout the United States the county is the unit of rural-school supervision, except in the New England States and in New York, Virginia, and Nevada. In the New England States the township is the unit, city schools being under the same management and supervision as the schools in the rural territory included within the township lines. In sparsely settled portions of all of the New England States two or more townships may form a union supervisory district, each employing one superintendent who divides his time among the townships in the union. In New York State an arbitrary supervisory district has been formed, composed in each case of a county or a portion of a county. The State (New York City excepted) contains 57 counties and is divided into 207 supervisory districts. Cities and union free-school districts having a population of 5,000 or over, and employing a superintendent of schools, are not included in these supervisory districts. In Virginia the unit of supervision is known as a "division," and may be a city, a county, or a combination of counties. Eighty counties constitute one division each, the other 20 counties constitute 10 divisions. In Nevada the supervisory unit is one or more counties; the supervising officer is a deputy State superintendent of public instruction. Five such officers are employed, each having supervision of the schools in from one to six counties. Table 2, reprinted from a recent bulletin of the Bureau of Education,[1] gives data for each State relative to the unit of supervision and the method of selecting the supervising officer. It also gives for each State the unit of organization for administrative purposes, as the efficiency of the supervision depends in large measure upon the organization for management. In States where the organization for administration and the unit for supervision are the same, the supervising officers are working under conditions more favorable to success. In States where the unit of organization for administration is, for instance, the local school district, and the unit of supervision is the county, the county superintendent has as many separate boards of school trustees to work with as there are schools in the county, having in many instances as many as 250 separate boards of trustees.

[1] Bulletin, 1914, No. 44, *County-Unit Organization for the Administration of Rural Schools.*

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TABLE 2.—*Rural school supervision.*

States.	Unit of organization for administration.	Unit of supervision.	Counties.	Supervising officers.	Title of supervising officer.	How appointed or elected.	Term in years.
Alabama	County	County	67	67	County superintendents	By county boards of education	4
Arizona	District[2]	....do	14	14	....do	By people	2
Arkansas	....do	....do	81	[9]25	....do	....do	2
California	District-county[4]	....do	58	58	....do	....do	4
Colorado	District	....do	63	63	....do	....do	2
Connecticut	Township	Township and union district.[5]	[6]168	45	Supervisors (for 111 townships)[7]	By State board of education	1
Delaware	District	County[8]	3	3	County superintendents	By governor	2
Florida	County[8]	....do.[8]	47	47	....do	By people	4
Georgia	County	County	146	146	....do	By people or county board	4
Idaho	District	....do	37	37	....do	By people	2
Illinois	....do	....do	102	102	....do	....do	4
Indiana	Township	....do	92	92	....do	By county board of education	4
Iowa	District and township.[9]	....do	99	99	....do	By presidents of township boards	2
Kansas	District	....do	105	105	....do	By people	2
Kentucky	County	....do	119	119	....do	....do	4
Louisiana	Parish[8]	Parish[8]	[10]60	60	Parish superintendents	By parish board of education	4
Maine	Township	Township and union district.	[6]475	216	Township superintendents	By local school board	1
				74	Union superintendents (for 214 townships).	By union board[11]	1
Maryland	County[8]	County[8]	[12]23	23	County superintendents	By county board of education	2
Massachusetts	Township	Township and union district.	[6]346	79	Union superintendents (for 244 townships).[7]	By union board	3
Michigan	District and township.[7]	County	83	83	County school commissioners	By people	4
Minnesota	District	....do	86	86	County superintendents	....do	2
Mississippi	District-county	....do	79	79	....do	....do	4
Missouri	District	....do	114	114	....do	....do	4
Montana	....do	....do	41	41	....do	....do	2
Nebraska	....do	....do	92	92	....do	....do	2

[1] City and town superintendents in New England are included, as their territory includes the entire township. Except in the New England States and in Delaware, Florida, Louisiana, and Maryland, cities and the large towns are independent districts.

[2] By district is meant the single district, usually one school and the territory it serves; by "county-district," both the county and single district, with the balance of power in the district.

[3] In 25 counties; whether or not county superintendents shall be employed is optional with the counties.

[4] Two units separated by a hyphen indicates the responsibility is divided.

[5] The union district in New England is composed of two or more townships.

[6] Number of townships.

[7] Other townships have individual superintendents.

[8] City schools are included in the county systems.

[9] Organized on two distinct units.

[10] New Orleans Parish excluded.

[11] Composed of one or more delegates from each township.

[12] Baltimore city excluded.

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States.	Unit of organization for administration.	Unit of supervision.	Counties.	Supervising officers.	Title of supervising officer.	How appointed or elected.	Term in years.
Nevada	District	Supervisory district	16	5	Deputy superintendents of public instruction (1 to 5 counties each).	By State board of education	4
New Hampshire	Township	Township and union district.	[1] 234	30	Union superintendents (for 96 townships).[2]	By union board	1
New Jersey	do	County	21	21	County superintendents	By State commissioner of education	3
New Mexico	District	do	26	26	do	By people	2
New York	do	Supervisory district [3]	57	207	District superintendents (for 57 counties).	By supervising district board of directors.	5
North Carolina	County	County	100	100	County superintendents	By county board of education	2
North Dakota	Township and district.[4]	do	52	52	do	By people	2
Ohio	County-township	do	88	88	do	By county board of education	3
				540	District superintendents	By presidents of township boards	1
Oklahoma	District	do	77	77	County superintendents	By people	2
				34	do	do	4
Oregon	do	do	34	24	District supervisors (assistants to county superintendents).	By county board of education	4
Pennsylvania	Township	do	[5] 66	66	County superintendents	By township directors	4
Rhode Island	do	Township and union district.	[1] 38	37	City and town superintendents	By city and town boards	1
South Carolina	County-district	County	43	43	County superintendents	By people	2 or 4
South Dakota	District	do	63	63	do	do	2
Tennessee	County	do	96	96	do	By county court	2
Texas	District-county	do	251	191	County superintendents (for 185 counties).	By people	2
				60	County judges (ex officio)		
Utah	County	do	27	[6] 32	County superintendents	By county board	2
Vermont	Township	Township and union district.	[1] 246	66	Union superintendents	By State board of education	1
Virginia	County-magisterial district.	Division (1 or 2 counties)	100	90	Division superintendents (10 have 2 counties each).	do	4
Washington	District-county	County	39	39	County superintendents	By people	2
				55	do	do	4
West Virginia	Magisterial district	do	55	82	Magisterial district supervisors (assistants to county superintendents).	By district board of education	4
Wisconsin	District	do	71	[6] 72	County superintendents	By people	2
Wyoming	do	do	27	21	do	do	2

[1] Number of townships.
[2] Other townships have individual superintendents.
[3] The New York supervisory district is a county or a part of a county.
[4] Organized on two distinct units.
[5] Philadelphia County excluded.
[6] Ten superintendents have one-half county each.

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In the States with the county unit system cities, as a rule, are set off as separate school districts not under the supervision of the county superintendents. Delaware, Maryland, Florida, and Louisiana are exceptions to this rule. Wilmington, Del.; Baltimore, Md.; New Orleans, Lake Charles, and one or two other cities in Louisiana are the only independent city districts in these States. As a supervisory unit the average county is too large in area and contains too many rural schools for efficient supervision, unless proper arrangements are made to furnish aid to the county superintendent in this part of his work. In many counties the number of schools is greater than the number of school days in the annual session, and it is apparent that the length of the superintendent's visit to the school must be short. Data relative to the number of visits made by county superintendents to the schools of their territory are contained in Table 4. It is apparent that, if the county superintendent does much to improve the work of the school and the teacher, he must aid each by some other means than by personal criticism of methods observed in the classroom. Satisfactory results have not been obtained except in the smaller counties, and in the case of comparatively larger counties where persons of especial ability have been obtained and have served for long terms, or in the counties where assistants of various sorts have been employed. Information concerning the employment of assistants is given later in this bulletin (Table 4).

Apart from the training and experience and natural ability of the supervising officer and the amount of assistance furnished to him, the principal factors determining the degree of success in his work are the size of the territory, the number of schools, teachers, and pupils, the unit of administration, the character of the board or boards of education for whom he must work, the method of his employment, and the length of term for which he is selected. Columns 2 and 3 of Table 2 show the units of organization for administration and the units of supervision in the various States. When the entries in the two columns are the same the indication is that the superintendent has but one board of education with whom he must concern himself to any great extent. For instance, the Maryland county superintendent is responsible directly to the county board of education. When the units of organization and supervision are different, the county superintendent has many boards with which to concern himself. The West Virginia county superintendent, for instance, deals with as many boards as there are magisterial districts in the county, which may be from 4 to 20. The Pennsylvania county superintendent deals with as many boards of education as there are townships in his county, which may be from 8 to 119. The Nebraska county superintendent deals with as many boards as there are local school districts in the county, which may be from 4 to 273. It is understood,

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of course, that in all of the States certain functions are given to county superintendents by State legislation, in which the local boards of education have no voice. Such powers and duties are included in Table 3 of this bulletin. It is true, however, that every rural superintendent must work directly with as many boards of education as there may be in his supervisory district, and that his work may be most successful only when the closest cooperation and harmony exist between the superintendent and these boards.

UNION, DISTRICT, AND DIVISION SUPERINTENDENTS.

The details relative to the supervisory unit and the supervisory officer in various States are given below.

New England.—In general, it may be said that the supervisory district is the township, the city being included as a part of the township under the same supervising officer as the schools in the rural territory. The great majority of city superintendents have rural territory under their supervision. As previously stated, in sparsely settled portions townships are united into union districts, and superintendents are employed whose time is prorated among the townships. The following brief description of the Massachusetts plan, together with the details of the other States wherever different from the Massachusetts plan, should prove sufficient to indicate the system.

The State of Massachusetts is composed of 346 cities and towns (townships); 112 of these are under the supervision of separate school superintendents; the other 244 are grouped into 79 "superintendency unions" with from 20 to 53 teachers in each union under a union superintendent. Union superintendency districts were optional prior to 1902. Since that date all towns are required to employ a superintendent either independently or with other towns in a "union district." The superintendent's salary is prorated among the towns in the union according to the number of teachers. To be eligible for appointment, a candidate must hold a certificate issued by the State board of education. He is appointed for a three-year term and at a minimum salary of $1,500. One-half of the salary is paid by the State. He has the same powers and duties as city superintendents. The area of the superintendency unions is small enough so that he may visit every teacher at frequent intervals. The system results in rural schools as well supervised as are those in the cities of the State.

Rhode Island contains 38 cities and towns; 36 of these have separate superintendents and two are united in a superintendency union under a single superintendent.

In New Hampshire in 1914–15 there were 11 cities, all employing school superintendents, and 30 union supervisory districts which

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include 96 townships. Approximately 77 per cent of the school children of the State are attending schools which are under supervision.

The State law authorizing the formation of superintendency unions was passed in 1899. It is not mandatory, and towns forming unions may withdraw upon majority vote of the legal voters. Since the passage of the law 130 have been sometime in superintendency unions. Many have been forced out of unions by the withdrawal of individual dissatisfied towns.

Superintendents must be appointed from a list certified by the State department of education, which examines candidates. One-half the salary of each is paid by the State; the remainder is prorated among the towns in the union.

The 1915 session of the Legislature of Vermont made important changes in the system of supervision. Previous to 1915 there were employed in the State, in addition to 7 city and town superintendents employed by the 7 cities and towns, 48 superintendents in 48 supervision unions, which included 154 townships, or approximately 70 per cent of the townships of the State. The act permitting the creation of such supervision unions was passed in 1906. The school laws adopted in April, 1915, provide that the State board of education shall employ trained supervisors for all schools in the State, designating the boundaries of each supervision district. Towns and cities having 25 or more legal schools may employ their own superintendents. Superintendents employed by the State board are to be paid by the State. Those in towns and cities with 25 schools or more are to be paid at least $1,500, of which $1,200 is to come from State funds, together with one-half of any amount in excess of $1,500.

Maine has 55 cities and townships with 2,500 population or over, and 475 townships and plantations, besides unorganized territory. Of these 475 towns and plantations, 214 are formed into 79 superintendency unions, each employing a school superintendent, approximately one-half of whose salary is paid by the State. The cities and other towns employ individual superintendents. Under the law cities and towns, upon the approval of the State superintendent, may form superintendency unions, provided such unions do not contain less than 20 nor more than 50 schools. Superintendents must be examined and certificated by the State superintendent.

Connecticut has four classes of school superintendents. Superintendents in three of these classes receive part of their salaries from the State. Any city or town may employ its own superintendent. Two or more towns together employing more than 30 and not more than 50 teachers may unite in a supervisory union, the State paying one-half the salary of the supervisor, provided that the State will

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not pay over $800 to any district on account of salary of its superintendent during any year. Any town employing more than 20 and not more than 30 teachers may employ a superintendent of schools holding a certificate of approval by the State board of education, the State paying one-half the salary. Towns with 20 or fewer teachers may permit the State to arrange for the supervision of their schools in supervisory unions under a person employed and paid in full by the State. Previous to 1909, from the time of the passage of the act providing this system of State supervision in 1903, the State paid only three-fourths of the salary.

The extent of the various classes of supervision is as follows: Thirty-two cities and towns employ full-time superintendents receiving no State aid; 10 towns are united into 5 unions employing 5 superintendents receiving one-half their salaries from the State; 8 towns with from 20 to 30 teachers employ 8 superintendents from those approved and certified by the State department of education, receiving one-half of their salaries from the State; 93 towns are arranged into 32 supervisory districts with supervising agents appointed and paid in full by the State. The plan is optional, local school authorities deciding for themselves whether or not supervisors shall be employed. There are 10 towns in the State not under supervision.

The success of the plan for the supervision of rural schools in Connecticut is indicated in a study made by Charles D. Hine, secretary of the board of education of the State, as recorded in the annual report of the board for 1913:

Some of the beneficial results already observable in the rural schools that have come under supervision are:

1. Better attendance.
2. Decreased number of one-room schools through consolidation.
3. Increased number of trained teachers employed.
4. Increase in the proportion of pupils graduating from the elementary schools and entering the high schools.
5. Increased regularity and punctuality of children.
6. Marked improvement in buildings.
7. Unmistakable evidence of greater interest in schools on the part of school officers and parents.

A study of the records of the small towns now having school supervision shows the following interesting changes since 1903–4:

1. Proportion of register pupils attending school every day has risen from 77 per cent to 82.7 per cent.
2. The number of one-room schools in these towns has decreased from 537 to 481, or 10 per cent.
3. The number of normal graduates employed as teachers in these towns has increased from 211 to 382, an increase of 55 per cent.
4. The number of pupils attending high schools from these towns has increased from 1,131 to 2,004, or 77 per cent.

Perhaps one of the most significant results of supervision has been the elimination of waste effort and lost time in the schoolroom. The gain in efficiency

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by these economies is making possible the more rapid advancement of pupils. Already a reduction of the elementary school course from the traditional nine years to eight has been effected in schools under State supervision. The gain through economy of time and better organization of work will eventually mean the completion in the early years of the course of the necessary training in fundamental operations with numbers and in the mechanics of reading and penmanship. One or two years in the latter part of the course may be then devoted to practical studies directly helpful to pupils soon to leave school for work. There can also be lines of special preparation for pupils fortunate enough to be able to continue their studies in higher schools.

New York.—Previous to 1912 the rural schools of New York were supervised in each county by a county school commissioner. On January 1, 1912, these county officers were replaced by district superintendents, each in charge of the schools of a county or portion of a county. The law designates the number of supervisory districts in the county. Four counties constitute one district each; 8 counties are divided into two districts; 18 into three; 13 into four; 7 into five; 4 into six; 2 into seven; and 1 into eight districts. There are 207 supervisory districts in 57 counties; the average district is therefore approximately one-fourth of a county. These supervisory districts do not contain city and union free-school districts with a population of 5,000 or over, provided such districts employ school superintendents. In the supervisory district there is a board of school directors consisting of two members from each township in the district, selected at the general election for a term of five years, in the same manner as all other township officers are chosen. This board is charged with the duty of electing the district superintendent, and it has no other duties. The board must select as superintendent a citizen and resident of the State, but not necessarily of the county or district, and they must select a person holding or entitled to receive a State certificate authorizing him to teach in any of the public schools of the State without further examination, and also a special certificate showing that he has passed an examination prescribed by the State commissioner of education in the supervision of course of study in agriculture and teaching the same. He is elected for five years and must devote his entire time to the work.

Virginia.—The division superintendent, who is usually known as the county superintendent, is selected by the State board of education and paid in part from State funds. The division, as stated, is the county in 80 instances, the larger cities constituting independent divisions. The other 20 counties constitute 10 divisions. The State board of education may or may not appoint local persons as superintendents. In practice they usually do appoint a local man.

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Nevada.—The law of Nevada until 1907 provided for county superintendents; the legislature in that year abolished the office and provided for the appointment of five deputy superintendents of public instruction. The 16 counties in the State are arranged into five supervisory districts; one district is composed of one county; two districts of three counties; one of three counties; and one of six counties. These superintendents receive their salary from the State and are directly responsible to the State superintendent of public instruction.

COUNTY SUPERINTENDENTS AND ASSISTANTS.

In the other 39 States of the Union the supervision of rural schools is in the hands of the county superintendents, with or without assistants. The Virginia division superintendent is as a rule a county superintendent and in the following summary will be included with the 39 States. Arkansas as yet employs county superintendents in but one-third of the counties of the State; in the other counties there is no supervision.

In four States (Delaware, Maryland, Florida, and Louisiana) the county superintendents have under their supervision all urban as well as rural territory; in the other States cities are set apart under their own supervisory officers. In at least 30 of the 40 States with county superintendents, assistant county superintendents under one title or another are employed; the number varying from that of a certain State with nearly 100 counties, only one of which employs an assistant, to Ohio with 88 county superintendents and a little over 500 district superintendents.

Ohio's present plan of supervision has been in operation since the summer of 1914 only. It was the result of the special session of the legislature held in January, 1914, when a school code practically new was adopted for the State. Under the provisions of the act Ohio has in each county a county board of education, composed of five persons elected by the presidents of the various village and rural boards of education. The rural district is usually a township and has a board of education of five members elected at large for four years. The county boards appoint the county superintendents, who act as secretaries and executive officers of the boards and have many specific duties in relation to the supervision of the village and rural schools. The county boards are authorized to subdistrict their counties, proceeding without regard to township lines whenever it seems advisable to do so. They are required to divide their counties into supervisory districts, no district containing less than 20 or more than 60 teachers. In each supervisory district so formed a district superintendent is appointed by the presidents of the village and rural boards included in the supervisory district. The actual supervision of teaching rests with these district superintendents. They

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are required to meet monthly with the county superintendent for advice on matters of school efficiency.

West Virginia has a similar plan, which is optional, however, instead of mandatory. West Virginia has no county board of education, the school district being the magisterial district, a civil division corresponding closely to the eastern township. These magisterial districts may employ district superintendents, or two adjacent districts may unite in employing a single superintendent. The district superintendents are appointed by the district board of education, but are legally assistants to the county superintendents. There were approximately 82 district supervisors employed during the school year 1915–16, or sufficient so that one-third of the rural teachers in the State were in supervised districts.

In *Kentucky* a plan is in operation somewhat similar to that in West Virginia. The counties are divided into "educational divisions," two, six, or eight to a county. Each division has a board of education. The responsibility of the management of the schools is divided between the county board and the division board, the balance of power being in the hands of the county board. The division board may employ a supervisor. Approximately 200 such supervisors were employed in 1915–16. Some of these officials devote their entire time to supervising the schools in their division; most of them, however, are devoting part of their time to teaching in the central school of the division.

Oregon in 1911 passed an act providing for compulsory supervision. It required the county superintendent in every county with 60 or more school districts to appoint a county board of education to be composed of four persons and himself. This board was required to divide the county into supervisory districts, each to contain from 20 to 50 school districts, and to appoint a district supervisor for each district so created. The district supervisors are required to devote their entire time to supervision for at least 10 months in the year. They are county officers responsible to the counties through the county superintendents and are paid by the county. The legislature of 1915 amended this act, making it optional rather than mandatory, but continuing in force until voted out by the school directors of the county.

These are all instances of plans where assistants to county superintendents are employed, each of whom devotes his entire attention to the schools of a division of the county. In other States mandatory or permissive laws have been passed for assistant county superintendents working throughout the entire county from the county superintendent's office. Pennsylvania, for instance, requires every county with 200 rural teachers to employ at least one assistant superintendent; counties with 400 teachers to employ at least two,

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etc. The Wisconsin Legislature of 1915 provided for supervising teachers in every county in the State, one in the majority of counties, but two in larger counties; in the 77 counties about 85 are employed during 1915–16. These supervising teachers are all women, are paid from county funds, and devote all of their time to supervising the teaching in the schools of the county. They are paid by the counties, but the counties are reimbursed by the State at the close of the year. New Jersey has a similar plan. The State commissioner may appoint in each county as an assistant to the county superintendent a "helping teacher" to assist and supervise the teachers in one and two room rural schools. Illinois allows the county commissioners to employ assistants to each county superintendent when they desire to do so. A few are employed. In Cook County there are five. In States with the county unit the county boards of education as a rule may employ as many assistants as they wish. The county boards of Maryland, for instance, have the same privilege in employing assistants to the county superintendent that the city board of Baltimore has for employing assistants to the city superintendent. In Baltimore County, with approximately 600 teachers, the board employs nine assistants.

Maryland.—The legislature in 1916 made important changes in the supervisory requirements.

Provision was made for employing as county superintendents persons thoroughly qualified for the office, who will be required to give their entire time to educational work. They are to continue to be appointed by the county board, but all candidates to be eligible for appointment must hold certificates issued by the State superintendent. They must be graduates of standard colleges and have had the equivalent of at least one year of graduate training in education, with work in certain special courses, and two years' successful experience in teaching or supervision. The term of service has been increased to four years and a minimum salary of $1,800 a year has been fixed. The State will pay one-half of the salary, up to $3,000.

The State superintendent is given power to remove any county superintendent for inefficiency or malfeasance in office. The appointment of a successor is left to the county board. The law makes clear that the county superintendent shall be the actual head of the school system, being required by legislation to take the initiative in making out the annual budget, locating school buildings, etc., and he "shall nominate all assistants and all teachers for appointment by the board." The county superintendent is given the power to assign the teachers to the particular schools.

Increased supervision has been provided by requiring all counties with 100 teachers or more to employ a primary grade supervisor at a minimum salary of $1,200. The State pays one-half of the salary,

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up to $2,000. Counties with less than 100 teachers may employ such supervisors, or two counties with less than 100 teachers may appoint a joint supervisor. Every county must appoint an attendance officer approved by the State superintendent, and every county must employ at least one clerk for the county superintendent's office. One-half of the salary of the attendance officer, up to $1,200, is to be paid by the State.

Although a greatly increasing sentiment for the employment of assistant county superintendents is evident, the number employed at the present time in the 40 States with county supervision is small in comparison with the total number of counties. There are approximately 2,820 counties in these 40 States; assistant superintendents are employed in approximately 18 per cent of them. In 10 States none are employed; in 5, assistants are employed in 10 per cent, or fewer than 10 per cent of the counties. Clerical assistance in the county superintendent's office, in many cases only part time, is furnished to about 29 per cent of the county superintendents (see Table 4).

EFFICIENCY OF COUNTY SUPERVISION.

The efficiency of the supervision of the county superintendents who are working without assistants (82 per cent of the total) depends upon many things: The size of the territory under their supervision; the conditions of travel; the number of schools, teachers, pupils, etc.; the organization for the administration of school affairs; the local powers and duties conferred upon them; their education, training, and experience; the length of the term of office for which they are elected or selected; and the method of selection or election.

To determine some of these conditions the bureau sent to the county superintendents in the fall of 1915 requests for information which were responded to by approximately one-half of them. Those answering were well distributed and may safely be taken as representative of the entire number. The principal data submitted are tabulated in Tables 4 to 10, given later. The figures given in the following paragraphs refer only to those replying.

Some of the difficulties in the way of efficiency are indicated by the data given in Table 4. The average territory of the county superintendent is 1,672 square miles; in 13 States, practically all Eastern States, the average for each State is less than 600 square miles; in 13 others it is between 600 and 1,000; in 3 it is over 5,000. For comparison it may be stated that the area of the State of Rhode Island is approximately 1,248 square miles. The rural-school term in the majority of these States is so short (five to eight months) and the roads so bad that the county superintendent can not make many visits in the year. The average county superintendent spends 40 per cent of his time visiting. In one-half of the States the prevailing number of visits per year to each teacher is one; in very few of the

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other half does it exceed two, the visits being from one-half hour to two hours in length. The average number of school buildings per county in the territory under the supervision of the county superintendents in the 40 States with county supervision is 84, of which 65, or 77 per cent, are one-teacher buildings. The average number of teachers per county is 132, although in Pennsylvania the average is 354, and in 4 other States the average number of teachers per county is over 200.

The type of person obtainable for the position of county superintendent depends in part upon the salary paid. It will be noted from Tables 5 and 6 that the salaries vary greatly. The maximum salary paid any county superintendent in the United States is $7,500 per year; several are paid $5,000 per year; the minimum paid any superintendent devoting full time to the work is $250. The average salaries by States vary from $3,000, paid in New Jersey to every county superintendent, to an average of $720, paid in Wyoming. There are 4 States in which the average salary is less than $1,000 per year, and there are 3 States in which the average is more than $2,000 per year; the average for the 40 States is $1,400. The most common salaries are $1,200 and $1,500. Thirty-four per cent of the county superintendents receive from $1,200 to $1,500, the greater number of these receiving $1,200; 20 per cent receive $1,500 to $1,800, the greater number of these receiving $1,500; 12 per cent receive from $1,800 to $2,100; 8 per cent receive $2,100 or over; 25 per cent receive less than $1,200. Of the county superintendents reporting their salaries to the bureau, eight-tenths of 1 per cent are receiving less than $300 per year; 2.8 per cent less than $500 per year; and 8 per cent less than $700 per year.[1]

For traveling the county superintendents are given a certain allowance in practically all States, the amount varying from almost nothing to $1,250, and the average being about $170. About 90 per cent of the superintendents are allowed office expenses; the maximum reported to the bureau, including traveling expenses, is $13,900; the average slightly less than $800.

The legal powers and duties conferred upon the county superintendents vary greatly. In some States they are very limited, the superintendents doing little more than they can persuade the school directors to allow them to do; in other States they are very numerous. For instance, the county superintendent in Washington has by law "the supervision of the common schools" of his county, power to enforce the use of the uniform course of study, authority to enforce the rules and regulations required in the examination of teachers,

[1] The salaries of superintendents employed in small cities are much higher; the average in cities of the United States between 4,000 and 10,000 in population is $1,889. In cities of from 10,000 to 25,000 population, the average is $2,437. In larger cities the salaries are much higher.

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to conduct the examinations, to hold teachers' institutes and county meetings of school directors, to suspend teachers for neglect of duty, to enforce the compulsory education law, and to require reports of school directors and teachers. In addition the plans for all new school buildings in third-class districts (that is, rural districts) must be approved by him before the building may be erected. In practice, he controls the estimate of expenses in each district and has much influence in the selection of teachers; he also selects the county board of education, a professional board consisting of himself and four others, which is authorized to grade the eighth-grade examination papers, to adopt textbooks for the entire county, to prepare teachers' manuals, courses of study, rules and regulations for governing circulating libraries, and to adopt such rules and regulations concerning the schools of the county as are not inconsistent with the State laws or the regulations of the State board of education.

Even a cursory review of the rural-school situation in the United States will show that, while supervision of an adequate nature has a permanent place in the cities of the United States, and the salaries, demands for professional training, powers, and professional responsibilities of the superintendent are increasing, supervision in rural schools is very inadequate. Table 3, enumerating the legal duties of county superintendents in 38 States, will show that there are so many duties of a clerical, general, and administrative nature as to overshadow almost wholly those of a professional and supervisory nature. In only one State is the county superintendent regularly authorized to engage teachers; in two additional States the superintendent approves the appointment of teachers; in four States he pays teachers or approves the warrants; in three States the county superintendent enforces the course of study, and in three he is required to prepare and outline it. In nearly every State the superintendent is legally required to visit the schools at least once a year, in a few States once a term, and to have general supervision over the schools, advising teachers and boards of trustees. Many superintendents can not fulfill even these meager supervisory requirements, since it is often a physical impossibility, owing to the amount of territory to cover, to visit each school even once a year (see Table 4).

TABLE 3.—*Most common legal duties of county superintendents in 38 States.*

[Omitting New England States, New York, Nevada, Ohio, Virginia, which have special provisions for supervision.]

	Number of States.
Make report to State superintendent (usually annually)	31
Visit schools (at least once a year in most cases)	30
Some control over giving of examinations and granting of certificates (most frequent provisions: County superintendent gives examinations; questions furnished by State)	28
Hold, encourage, or conduct teachers' institutes	30

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Number of S

Apportion State or county funds (both usually)
Apportion library funds (Oregon)
Keep records and distribute blanks
Have some control over district boundaries
Hear controversies and decide appeals (usually concerning districts and teachers)
Have some control over buildings, grounds, and repairs of schoolhouses
Have general supervision of all schools and advise teachers and trustees
Audit accounts (district trustees)
Fill vacancies in board of trustees
Enforce rules of State superintendent
Grant permits to teach or temporary certificates
Have some power in enforcing attendance laws or granting certificates to work

Exceptional legal duties of county superintendents in particular States.

[Not always assumed by county superintendent.]

Concerning teachers:

Fill vacancies—Fla.
Pay teachers—Ala., Ariz., Ky., Miss.
Fix salaries—Miss.
Revoke certificate or suspend teachers—Ark., Del., Colo., Fla., Ga., Ill., La.,[1] Mich., Miss., Mont., S. Dak., Wash., Wis.
Countersign warrants—Tenn.
Approve warrants—Ark.
Approve appointment of—N. C., Tex.

Concerning textbooks:

Member textbook or library commission—Ky., Mont., S. Dak.
Distribute to indigents—Ky.
Distribute price lists—W. Va.
Compile list—Del.
Enforce rules concerning—Ga., Miss.

Concerning course of study:

Enforce it—Ariz., Cal., Miss., Oreg., Wash.
Prepare it—Ark., Mo., Wash.

Concerning directors:

May remove—Ill., Miss., Ky.
Hold meetings of or meet with—Mich., Minn., Mo., Mont., N. Dak., Oreg., Pa., S. Dak., Wash., Wis.

General:

Hold public meetings in each district—Kans., Mo., Okla.
Member of county high-school board—Colo., N. Mex.
May close schools under certain conditions—Cal., Fla., S. Dak.
Member or secretary county board—Ala., Cal., Fla., Ga., Ind., Ohio, Md., Miss., Oreg., S. C., Tenn., Wash.
Member board of examiners—Mich., Mont., N. J., Oreg.

[1] Recommends revocation to parish board.

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General (continued):

Appoints board of examiners	Ky.
Estimate amount of tax	Ariz., Colo., Utah.
Appoint deputies or assistants or clerks (with consent of county commissioner or similar officer; or number of schools)	Ariz., Cal., Fla., Idaho, Ill., Ind., Mich., Minn., Mont., Pa., S. Dak., Utah, Wis.
Examine eighth-grade pupils for graduation	Ind., Mo., Oreg.
Audit accounts (generally of district trustees)	Colo., Ga., Kans., Nebr., Okla., Oreg., S. Dak., Utah.
Collect certain tax (railroad and bridge)	Ky.
Report to State board of health	Wis.
Sell school lands	Ill.

From Table 2 it will be noted that the county superintendents are elected by the people in 27 States. The term of office in 16 of these States is two years only, in the other 11 it is four years. In 25 of the 27 States electing superintendents, the election is held at the regular November election of political officers; in 2 of these the county superintendent's name appears on a special ballot; in the other 2, separate school elections are held. In most of the States the term of office begins on January 1 or some time during the annual summer vacation. The county superintendents are appointed by county boards of education or some other authority in 13 States; in 5 of these the term is two years, in 2 the term is three years, and in 6 the term is four years.

The States in which the county superintendents are selected by means other than general election by the people and the manner of their selection are given in the following:

The township school directors of Pennsylvania, who are elected by the people, meet annually and at every fourth annual meeting select a superintendent for a four-year term.

The county boards of education of Ohio, which are selected by the presidents of the village and township boards in each county, select the county superintendents, who act as secretaries and executive officers of the boards as well as perform specific duties given to them by State legislation.

The township trustees from each township in the county in Indiana, who are elected by the people, meet every four years to select a county superintendent. These same trustees, with the county superintendent and the presidents of the town and city boards of education, constitute a "county board of education," which meets semiannually. This is the only county board of education of Indiana. In the selection of the county superintendent, however, the town and city representatives have no voice.

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In Iowa a meeting is held every second year, composed of representatives of all the townships in the county, to select a county superintendent for a two-year term. In townships organized on the township basis in school affairs, the president of the township board of education is the representative; in townships organized on the single-district basis, the trustees of the various schools meet and select one of their number to represent the township. Both township and district trustees are elected by the people.

The Maryland county board of education, appointed by the governor, selects the county superintendent for a four-year term. He serves as its secretary, treasurer, and executive officer. The members of the county boards are selected for six-year terms, one-third of the terms ending every second year. The board is therefore continuous.

The Delaware county superintendents are appointed by the governor of the State.

The New Jersey county superintendents are appointed by the State commissioner of education.

The North Carolina superintendents are selected by the county boards of education, members of which are elected by the State legislature.

The Tennessee superintendent is selected by the county court.

The Louisiana county (parish) superintendent is selected by the parish board of education, which is elected by the people.

In Alabama and Utah the county superintendents are selected by the county boards of education, which are elected by the people.

The Virginia division superintendents are appointed by the State board of education.

In Georgia two methods are in use, superintendents being elected in some counties and appointed by county boards of education in others. Georgia in 1887 provided for the appointment of all county superintendents by the county boards of education. In 1909 this law was repealed, and provision was made for their election by popular vote for four-year terms. The counties, however, were permitted to adopt a unit system in which city districts become part of the county district, with boards of education elected by the people, and county superintendents appointed by the board. Fifteen counties in the State are now organized on this basis. This appears to be the only instance in recent times in which a State, having once provided for appointed county superintendents, has returned to the old system.

Of the 40 States employing county superintendents, 26 require certain educational qualifications to be eligible for appointment; 18 of these require experience in teaching. In the others no educational qualifications are required whatever. It may be said, how-

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ever, that in some of the States where no educational qualifications are required by law, better-trained persons are selected, as a rule, than in some of the States where educational qualifications are required.

In Tables 8 and 9, given later in this bulletin, are included the general education and special training of the county superintendents of the United States, as far as the information is available. It will be seen from this detailed table that 6 per cent of the county superintendents have attended elementary schools only; 3 per cent elementary school and one year at secondary schools; 3 per cent two years at secondary schools; 4 per cent three years at secondary schools; and 20 per cent four years at secondary schools. Seventeen per cent of the county superintendents are graduates of secondary schools, with one year or less than one year of higher education; 17 per cent have had two years of higher education; 6 per cent have had three years; and 22 per cent have had four years. To state this in another way, of all the county superintendents of the United States, 6 per cent have elementary education only; 10 per cent have had elementary education and a partial high-school course; 20 per cent have had a complete high-school course, but nothing beyond; 40 per cent have had a complete secondary-school education and a partial college course; and 22 per cent are college graduates. In making these averages, if the county superintendents of Ohio, who are practically all college graduates, and those of Pennsylvania and Indiana, in which a large percentage are college graduates, should be omitted, the percentages with secondary education or less for the other 30 States would be much greater than the figures given and would represent more nearly the average condition in the United States.

It is interesting to compare the general education of county superintendents in the States where they are appointed with those in the States in which they are elected by popular vote. A summary is given in Table 9. In this summary the States are divided into four groups: (1) The New England group; (2) the 12 States in which the superintendents are appointed; (3) the 11 States in which the superintendents are elected by popular vote for four-year terms; (4) the 17 States in which the superintendents are elected by popular vote for two-year terms.

These figures seem to show that persons with better general education are selected as county superintendents when the selections are made by boards of education than when they are elected by popular vote. From data contained in Table 8 it would seem that persons are selected who have had more teaching experience previous to selection. Table 9 shows the number of superintendents in the States where appointment prevails and in the States where superintendents

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are elected who are serving their first, second, and third or more than third term. The summary shows that among the appointed superintendents 36 per cent are serving their first term, 29 per cent their second term, and 35 per cent their third or more than their third term (the New England group, New York, and Ohio are omitted). Among the elected superintendents 52 per cent are serving their first term, 28 per cent their second term, and 19 per cent their third term. The records of some of the individual States are interesting. One State where the county superintendents are elected by popular vote has as high as 73 per cent of the county superintendents serving their first term. A study of the number of superintendents who have been in office more than eight years shows that most of these are in the group of appointed superintendents and very few in States where selection is by popular vote.

Of the 2,820 county superintendents in the United States 544, or 19 per cent, are women. Nine of the rural superintendents of New England and 37 of those of New York are likewise women. Data collected by the Bureau of Education would seem to indicate that the women county superintendents as a class have more general education and professional training than the men as a class, and that they devote a larger percentage of their time to visiting schools.

The States in which women are employed as rural superintendents are given below:

States with women rural superintendents.

States.	Women.	Men.	Total.
New England:			
Maine	3	76	79
Massachusetts	2	72	74
New Hampshire	1	29	30
Rhode Island	1	15	16
Vermont	2	64	66
New York	37	170	207
Arizona	9	5	14
California	25	33	58
Colorado	46	17	63
Idaho	25	12	37
Illinois	8	94	102
Indiana	1	91	92
Iowa	54	45	99
Kansas	54	51	105
Kentucky	24	95	119
Michigan	10	73	83
Minnesota	28	58	86
Missouri	20	94	114
Montana	40	1	41
Nebraska	49	43	92
New Mexico	5	21	26
North Dakota	17	35	52
Oklahoma	18	59	77
Oregon	2	33	35
South Dakota	38	25	63
Tennessee	6	90	96
Texas	10	241	251
Washington	19	20	39
Wisconsin	18	54	71
Wyoming	18	3	21

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III. SPECIAL FORMS OF RURAL SUPERVISION IN VARIOUS PARTS OF THE UNITED STATES.

STATE SUPERVISION OF RURAL SCHOOLS.

From an article by L. J. HANIFAN, State Supervisor of Rural Schools of West Virginia.

The beginning of State supervision for rural schools in the South came through the assistance of the Southern Education Board and the General Education Board. Up to the time when the southern group of State supervisors were appointed, comparatively little was known of rural-school conditions in the South or in any other section of this country. Therefore the first problem that confronted these State supervisors was to find what the school situation is and what must be done to improve rural conditions. In practically every one of these States a cursory survey was made in the beginning. It is interesting to note the varied methods pursued by these rural workers. In Virginia the line of attack was mainly by means of county school fairs; in North Carolina through consolidation of schools; in Georgia the problem was one of securing a better system of taxation, and hence the supervisor directed his energies toward tax legislation; in Mississippi the supervisor began by organizing the boys and girls into corn and tomato clubs; in South Carolina the supervisor undertook the general revision of the school laws of the State; in Kentucky demonstration schools at strategic centers were established. In West Virginia, where a plan of local supervision had been in effect for a few years, the problem was attacked through extending the supervision of country schools. Similarly other supervisors adopted a plan which seemed to be most likely to effect rural-school improvement.

Each of the State supervisors undertook other projects for meeting the most urgent needs, but his main efforts were directed along the lines of work indicated. The first year was, therefore, somewhat experimental, the Southern Education Board serving as a clearing house of results. In order to get a compendium of plans and results of the work and to formulate plans for the future, a conference of supervisors of the Southern States was called in April, 1911. Reports were gone over and plans for the future mapped out. It was decided that each State supervisor should devote as much of his time as he could spare to research, the results to be reported at

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the next meeting of the conference. The committees appointed worked on the following special problems: Legislation and taxation, courses of study, rural activities, consolidation of schools, experimental schools, and rural supervision. In addition to this, each State supervisor did more or less independent research work on problems of peculiar interest in his own State, as, for example, a study of tenure of position in the rural schools in South Carolina, made by W. K. Tate, who found that 63 per cent of the rural teachers were teaching their first year in their present position, 23 per cent their second year, 8 per cent their third year, and only 6 per cent more than three years. The results of the study of the committees and individuals have been handed to each of the State supervisors. Quarterly reports made to the southern board have been handed to each. This close association has been of inestimable value in furthering the progress of the work.

The State supervisor's work.—There are so many possible activities for State supervisors of rural schools that success depends upon good judgment in the selection of the particular activity to undertake.

1. State rural leadership. The legal and actual head of any State school system should be the State superintendent of public instruction. Because of the multiplicity of duties connected with his office, he can exercise leadership only in so far as he is able to inspire and direct the activities of his subordinate officers or affiliated leaders. The opportunity of the State superintendent to be a leader of rural forces comes best through the State supervisor of rural schools. Rural forces are feebly organized; they lack federation and cooperation. The time is ripe for a more effective organization of all the forces working toward the improvement of rural conditions. This cooperation should not be local or sectional; therefore the State supervisor of rural schools should be one who can unify all the effective agencies of rural improvement in the State, not only for rural schools but for rural conditions in general.

In most States the State supervisor has as a basis of his activities and as a nucleus of organization county superintendents, the district or township supervisor, and the county or district boards of education. He has the right to expect the cooperation of the extension service of the State college of agriculture, State normal schools, department of education in the State university, rural high schools, and the State department of good roads. It ought to be possible for him to secure the cooperation of the State grange, federation of women's clubs, the civic league, the annual conference of the various religious denominations represented in the State, the school-improvement associations, and any other organizations that have as their object the general social welfare. If these institutions and organi-

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zations are to render the maximum service, there must be a definite plan and concerted action for the whole State. This field of leadership is open to the State supervisor. Time and experience only will determine whether he will meet successfully this fine opportunity.

2. Work as an investigator and constructionist. Both teachers and executive officers of schools are inclined to hold on to things as they are; therefore weak school systems, faulty methods, or bad practices may require many years to correct. They are handed down from one set of school men to another, from one generation to another, each following what their teachers or patterns thought or did. It is mainly for this reason that the county superintendents for many years did little more than make their annual visits, say "good morning," make a speech, say "good day," and move on to the next school. All the while it did not occur to the people that this sort of supervision is no supervision at all, in the true sense of the word. Nor did they know even the meaning or the importance of the right kind of supervision. It becomes the duty of the State supervisor of rural schools to study the school situation in the country to find out as nearly as may be what the actual conditions are, to make them known to the people in the legislature, and to wage a campaign of constructing such a school system as will meet the educational needs of the country school districts. He may do so through the press, from the platform, by conferences with leading men, or with bulletins distributed throughout the State. His is a consistent campaign of public enlightenment on both rural-school and rural-life conditions, paralleled by a campaign of wise constructive statesmanship.

Miscellaneous work.—Most of the work of a State supervisor of rural schools could well be classed under the divisions above, research and reconstruction, and State rural leadership. He has, however, many opportunities that will not admit of definite classification. He may be of inestimable service to the State superintendent in collecting information on rural problems for his reports and for his general use in his larger work of administering the whole State school system; in carrying out his general policies in so far as they relate to the rural schools; by representing the State superintendent at public meetings of an educational nature, when it is impossible for the superintendent to be present; by taking over the actual leadership of the rural educational forces in the field. He can serve the State board of education by expert advice upon the right kind of rural school curriculum, by assisting in the actual preparation of a State course of study, by seeing that the State course of study is enforced, by advising and assisting this board in discharging their other varied duties. He may serve the county and district superintendents by making his office a clearing house for collecting and disseminating information of the best that is current in educational

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work; by advice and instructions of a varied nature through correspondence, circulars, and personal conferences; through the sympathy and encouragement that he may show them in many ways. He can serve the teachers by personal instruction and encouragement to them assembled in groups, for example, at teachers' institutes, State associations, and round tables; by personal correspondence with those who will undertake any kind of work of a special nature or with any others who care to call upon him for expert judgment on particular problems in their schools; by supplying them with bulletins, educational bibliographies, and references to special educational articles in magazines or newspapers. He may serve the local boards of education by distributing among them bulletins and education literature dealing particularly with the problems of their office; by direct correspondence with them on needed school improvements in their communities; by advice upon how to bring about improvements that they already see the need of; by going to these local communities and giving personal assistance toward winning over to the cause of progress a majority of the voters. He can serve the people as a whole by directing the organization of clubs, leagues, and societies for rural life improvement; by personal visits to the meetings of these organizations, thus lending to them the prestige of the office he represents; by furnishing newspaper articles on subjects that are of common concern to the whole Commonwealth.

THE STATE RURAL-SCHOOL INSPECTOR IN WISCONSIN.

By W. E. Larson.

The law providing for a rural-school inspector in Wisconsin was passed in 1905. At the same session the legislature enacted a law providing for holding annual school-board conventions in every county of the State. The State superintendent planned to have the rural-school inspector represent the State department of education at these meetings.

As a result of this law, about 100 conventions of school officers have been held annually in the State. The most important work that the rural-school inspector has done is to help the county superintendents in these meetings. Because of the services of this member of the department it has been possible to plan and carry out definite campaigns for school improvement throughout the whole State. The influence of these gatherings has been great, in that the people themselves have become more intelligently interested in school matters.

The rural-school inspector, in common with the other inspectors of the department, has the power to condemn school buildings that are

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unfit for use or to order repairs to be made. As a result of this law, which was passed in 1909, many school buildings have been repaired and improved and many new ones have been built.

The State superintendent receives during the year many requests to have members of the department visit communities to explain school matters of various kinds, such as consolidation, the organization of State graded schools, the organization of union high schools, and the like. The rural-school inspector is frequently sent to such communities to conduct meetings and discuss school problems. Many such meetings are held during the year.

The rural-school inspector has assisted in visiting the county training schools and advising with the teachers in these schools. The members of the department visit the training courses in the high schools, and this work is shared by the rural-school inspectors.

Because of the increasing demand made upon the rural-school inspector, the State superintendent arranged to add another such worker to his staff in January, 1913. The time of both of the inspectors has been fully taken up, the second devoting most of her time to assisting the county supervising teachers mentioned on page 30.

The inspectors attend several teachers' meetings of various kinds during the year. They also spend some time with the county superintendents, visiting rural schools. During the year 1914–15 about 200 rural schools had to be visited to determine whether or not special State aid should be granted. The law considered is now repealed, but in its place another has been enacted providing special State aid to rural-school teachers, and the inspectors will visit a number of these schools with the county superintendents in order that there may be a reasonable uniformity in the standard.

The inspectors, when possible, attend special gatherings of various kinds, such as county commencements, social-center meetings, and farmers' clubs, aiding as far as possible the movement to use the schoolhouse for community purposes.

A portion of the correspondence of the State superintendent is taken care of by the inspectors, especially those letters and questions dealing with rural educational problems. Suggestions are given and questions are answered by the inspectors whenever they, because of their contact with rural problems, are able to give the best information.

The rural-school inspectors are required to keep in touch with the improvements in rural education in other States and countries, in order that they may be able to bring before the people the best information with reference to school betterment. This information may be given in public addresses, in private counsel with teachers, officers, and patrons, and in literature sent out from the State super-

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intendent's office. Several of the publications sent out from the department of public instruction have been prepared in part by the inspectors.

In general it may be said that the rural-school inspectors have special charge of such questions in the department of public instruction as relate to country schools. They are the State superintendent's special advisers on questions pertaining to rural education. Most of the time is spent in the field advising with county superintendents, school officers, trainers of rural teachers, and with the teachers themselves, or in studying the conditions and problems confronting the people, thus keeping the educational department in close touch with the actual situation.

HISTORY OF STATE SUPERVISION IN CONNECTICUT.

By HERBERT O. CLOUGH, Inspector of State Supervision.

Supervision of schools in the small towns of Connecticut dates from 1903, in which year the legislature passed a law providing that towns having less than 10 teachers might petition the State board of education for the appointment of a supervisor who should perform the duties usually performed by such officers. The State board appointed the supervisor, the town fixed the amount of his remuneration, of which the town paid one-fourth and the State three-fourths. The popular response to this law was not immediate. Only eight towns asked for the appointment of a supervisor the first year—Beacon Falls, Bethlehem, Burlington, East Granby, North Canaan, Prospect, Somers, and Saybrook.

Following is a table showing the number of towns under the system since 1903:

Towns having supervisors of schools.

Year.	Number of towns.	Number of supervisors.
1903–4	8	4
1904–5	12	5
1905–6	11	6
1906–7	12	6
1907–8	22	13
1908–9	41	23
1909–10	55	28
1910–11	73	33
1911–12	83	36
1912–13	93	51
1913–14	91	[1] 35
1914–15	93	[2] 52

[1] One supervisor of agriculture included.
[2] Two supervisors of agriculture included.

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As the system did not gain in popularity, the legislature of 1907 increased the number of towns which might ask for an appointment of a supervisor by including those with 20 or fewer teachers. The number of towns asking for supervisors increased at once to 22, and the following year to 41. The number of supervisors likewise increased until 1912, when there were 93 towns in the system and 34 supervisors. Another factor in increasing the number of towns asking for an appointment was the act of the legislature of 1909, which passed a law providing that the State should pay the entire salary of the supervisors instead of three-fourths, as before that time. This made the system a State system.

The supervisors perform the duties required by law of the "acting school visitors," but further than having the power of disapproving teachers in average-attendance towns who are not qualified for their work, they derive their powers from the committees of the various towns. The committees may give to them any powers regarding the schools they wish and may withdraw those powers at pleasure. Hence the supervisors are dependent for most of their power upon the local authorities and must work in harmony with them. Supervisors are expected to carry out the desires of the State board of education, but their carrying them out depends on their ability to persuade the local committees. In practice this has worked well, better probably, considering the feeling of independence of local authorities, than would a scheme giving the State more complete power. Supervisors are in the rather difficult position of working for two sets of masters, and the fact that they are able so to work seems to speak well for the wisdom of the State board, the good sense of the town authorities, and the qualities of leadership displayed by the men themselves.

In 1912 several towns had increased the number of teachers they employed to more than 20, and by a ruling of the attorney general it was then necessary for them to withdraw from State supervision and provide for a supervisor of their own. Hence at this time the number of towns in the system became less. At the present time all but about 10 towns which can have a State supervisor have one. This is evidence that the system is popular and on the whole satisfactory.

Before 1907 there was little organization of the work of State supervision. Each supervisor acted independently of others to a large degree. It became increasingly evident that with the frequent changes in the supervision force this plan was not adapted to our needs, as the changes in supervisors also meant changes in courses of study in use in the different schools. During the year 1907–8 the supervisors met with the secretary of the State board of education

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from time to time for conference and discussion of plans for their work. The result of these conferences was twofold; they impressed on the supervisors the importance of certain definite lines of work, and they emphasized the fact that there was little agreement among the supervisors regarding the methods to be followed in the schools under their charge. From this time on the matter of agreement among the members of the force became of greater importance and an effort was made to bring the work of the different men into harmony. The group meetings have been continued since 1907.

In the summer of 1908 prospective supervisors for the State system were required to attend the Danbury summer school to become familiar with methods of teaching under the system. In 1910 a further step toward harmonizing the various methods of work being followed in our schools was taken. All supervisors were asked to come to Danbury for a two weeks' conference in connection with the Danbury summer school. Since that time each summer has seen a meeting of all the supervisors, at which committees of them have discussed methods and recommended plans for the coming year. Thus has grown up a close supervision system, in which strong men find sufficient latitude for expression of their views and which does not subject a town to changes in the essential parts of school work, as would be the case if there was no agreement concerning the work to be accomplished. In 1914 a definite course of study was put in use in all the schools in the system, the same for all.

During the first few years of State supervision the secretary of the State board of education kept in touch with the work of the supervisors personally by visits to their towns, one year visiting some schools of every supervisor. As time went on, however, and the number of towns increased, it became impossible for him personally to give as much attention to this as seemed desirable, and Mr. J. R. Perkins, the principal of the Danbury Normal School, was appointed by the State board as inspector of the system, exercising this power during a part of the year 1911–12.

In the fall of 1912 three members of the supervision force were appointed inspectors of the supervision work throughout the State. Since then regular inspection of the schools in the system has been made. The inspections are not meant to be critical merely, but constructive as well. While checking up the work of supervision the inspectors try to give help as needed to supervisors. There are at present two inspectors, and they also have towns to supervise. Therefore they are kept close to the work of supervision and have to obey the same rules they make for the other supervisors.

The legislature of 1913 passed a law providing that one teacher in each town might be approved as a model teacher under certain restrictions and receive pay from the State in addition to that given

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by the town. This teacher is to demonstrate to other teachers approved methods of work in schools and to help them in as many ways as she is able to make their schools more efficient. These model schools have enabled the supervisors to demonstrate to the teachers generally in their towns good methods, profitable seat work, and school work of a higher grade than would have been possible otherwise. Also the law has made it possible for towns to get better teachers for a few schools because of higher wages paid to them. The effect of these model schools has been excellent in stimulating teachers to better work and in raising the standards for equipment of schools as well as the teaching in them.

The improvements in the rural schools of the State due to supervision may be classified under the following heads:

1. Improved buildings.
2. Better equipment.
3. Teachers. Better trained teachers have taken the place of those who had no training for their work and little genuine intelligence in school matters.
4. Well-planned and progressive course of study, and teachers instructed in the best methods to use in following it.
5. Greater interest of people in the schools.
6. Attendance of children in school has been promoted and increased.
7. The city high schools generally have been willing to accept the certificates of supervisors that pupils fitted for high school in the rural schools are ready for the work and do not require special examinations from them.
8. Special work. Considerable work is being done in the country schools which looks toward better preparation for rural life later. Agriculture, sewing courses, manual training, and encouragement of the performance of home duties have brought the school nearer to the home.
9. Salaries. Teachers generally receive better wages than 10 years ago.

SUPERVISION OF NEGRO SCHOOLS THROUGH THE JEANES FUND.

The Jeanes fund is a foundation with a million-dollar endowment established by Miss Anna T. Jeanes, of Philadelphia, the income from which, amounting to about $40,000 a year, is spent in the country schools for Negro children throughout the South.

Some of the money is spent in helping country districts to build and equip houses, kitchens, shops, etc., and to extend the school term. A large part of it is spent in supplying industrial supervisors for the rural schools.

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The fund is administered by a board, of which J. H. Dillard, formerly dean of Tulane University, New Orleans, La., is president and general manager. The plan of supervision being worked out originated in Henrico County, Va., and consists in supplying a supervising industrial teacher who visits the rural schools of a particular territory or county and introduces and supervises simple forms of industrial work. This supervisor, though paid by the Jeanes fund, is appointed by the county or parish superintendent and works under his direction, and is in fact one of his corps of teachers. In some instances the local school authorities add to the amount of appropriation, either by augmenting the salary of the supervisors or by contributing to the expenses of traveling over the county.

Besides supervising industrial work the supervisors assist the teacher in every way they can; stay in a community long enough to become acquainted with its needs and become social workers, organizing improvement leagues, mothers' clubs, children's clubs, etc.; work for better buildings, better sanitary conditions, and general social and educational uplift. Among the accomplishments of these supervisors enumerated in reports to Dr. Dillard are such as these: Extended school term on an average of one month; many new buildings, and others enlarged; better attendance; better teaching; more interest among the people; better physical conditions in the community; the teachers employed in the work are graduates of Hampton, Tuskegee, Petersburg, Cheney, Fisk, Atlanta, and kindred institutions.[1]

The president's annual report for 1914 shows the following:

Number of States	13
Number of counties	119
Number of supervising teachers	118
Number of special teachers	4
Amount of salary paid by fund	$34,262
Amount of salary paid by counties	$6,255
Average total salary	$333.05

The following circular letter indicates the nature of the work which President Dillard expects of the supervisors:

NEGRO RURAL SCHOOL FUND.

JEANES FOUNDATION.

[Circular letter to supervising teachers.]

I take this means of addressing each one of you on the subject of your work. You are one of a body of workers whose salaries are paid by this fund for the purpose of enabling you to devote whatever ability and skill you possess, and all your most earnest efforts, to the betterment of the rural schools and com-

[1] Pres. Dillard's annual report, 1914.

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munities of your race in our Southern States. You know, in a general way, that our desire is for you to do whatever you can for school and neighborhood improvement in the communities which may be visited by you. Purposely you have not been given very specific rules and directions, and this for two reasons: First, the work of this fund is new, both in time and in plan. It is necessary to learn gradually the best way of doing things, so that the work may be intelligent as well as earnest. Second, conditions vary from State to State, from county to county, and even from community to community. The kind and method of work best suited to one place may not be suitable in another place. For this reason it is to be expected that the reports which you make each month should show considerable difference in the character of the work.

You can see that it would be difficult to prescribe precisely what each worker should do, but enough is known to guide you in the main lines.

1. You should keep in touch with the school officials under whom you are working and follow their directions whenever given.
2. You should exercise tact and discretion in dealing with the teachers of the schools which you visit, and show that you have no desire to usurp authority, but wish to be a helper and fellow worker.
3. You should assist in organizing the people of the community into associations for self-help, for school improvement, for extension of terms, for sanitation or any other good purpose.
4. You should cooperate with the minister or ministers of the community, and thus endeavor to bring the great influence of the churches to bear upon the practical life of the people.
5. You should endeavor to introduce in every school some one or more of the home industries, and any form of industrial work suited to that community.
6. You should by word and example promote orderliness, promptness, and cleanliness, being particularly careful, for the sake of the influence on the children, that the schoolrooms and school surroundings, no matter how poor, be kept neat and tidy, and in as good condition as possible.
7. You should urge and demand care and accuracy in the work which you supervise, remembering that one good purpose of such training is to prevent the doing of things in a slovenly way.

While, as has been said, your reports show that you are not all working in exactly the same way, yet it seems true that all of you are doing good in the various places in which your work lies. I wish to express gratification at the earnestness and fine spirit which so many are showing.

Two monthly report blanks are sent to the superintendent with your salary check, one of which is to be returned to the superintendent. In making your reports write plainly the names of the schools and communities visited, and tell briefly and specifically what you did at each school or community. Prepare and return the reports promptly after the month's work is ended. Have the report cover the full month indicated at the top, and only that month. Remember that the more schools and communities you can visit, the better pleased we shall be with the report.

In conclusion I wish to say that your letters, whether of information or inquiry, are always welcome, and you may be sure that they will receive careful attention.

Yours, truly,

JAMES H. DILLARD.

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COOK COUNTY SYSTEM OF RURAL SUPERVISION.

By E. J. Tobin.

Cook County, Ill., has five country-life directors, each having charge of about 25 schools. Each must reside in his division. Their tenure is as long as they do their work satisfactorily to the county superintendent. They are charged with three definite lines of work, namely, supervision and direction of all academic school work, the initiation and supervision of all school-home project work, the initiation and direction of all community and recreation work in their divisions. They have no clerical duties. It has been said that they are the only community secretaries employed and paid by the public in rural America. They must see that all pupils over 10 years of age take at least one school-home project as a part of their regular school work. The Cook County system of rural supervision springs in part from the idea that the home life of the boys and girls must be more closely connected with school training, and that the book learning of the school and the actual doing of useful things about and in the home must be related. For this purpose we have outlined the Cook County work in school-home projects, the intent of which is to make the home subjects the center of school interests. Six projects have been outlined, as follows: Field and garden, poultry, cow testing, music, sewing, and cooking, and business.

Education of this kind requires that parents and teachers work in concord. By it boys and girls are being prepared for rural leadership. They are learning to do the necessary things of life well and with a good spirit. The success of this kind of teaching is absolutely dependent upon cooperation between the parents and teachers. The parents' cooperation in Cook County proves that they are ready and willing to cooperate with the schools whenever our plans and projects make a clear and forceful appeal.

The link that should have bound together book learning and home activities seems to have been missing. The Cook County course in school-home projects was devised to be the missing link to unite the home and the school. School-home project work is an extension of the rural school system and is directed and supervised by the same officials who direct the work in reading, writing, and arithmetic. As close supervision and direction is needed, if the work is to be successful, as is required for other school work. To provide this kind of supervision, rural Cook County is divided into five divisions, each in charge of a country-life director, whose duty it is to supervise and direct all school-home project work in their divisions. During the summer vacation months of July and August, the country-life directors give their time to visiting and directing the supervision

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of field school-home projects. As each country-life director's division had about 500 pupils during 1915 engaged in field school-home project work, it was found necessary to provide additional supervision, if each project was to be supervised and directed with the same efficiency as is other school work. To supply this need Cook County appropriated $2,800, which allowed each country-life director $560 for additional supervision of school-home projects in his division. These "wandering supervisors" were teachers from the division and were selected for their efficiency in this work by the country-life director. This provided for 15 wandering teachers in addition to the 5 country-life directors, a sufficient number so that each pupil's project was visited once a week or thereabout.

This work of supervision is of great value. It takes the teacher directly into the homes. It makes the school a force in the community by linking the pupils' work with the family life and the rural business of the farm. It directs the pupils' energies in a profitable way during the vacation months. By this method the school period is extended and the rural school is placed on a basis of efficiency. Parents realize through this kind of school work that the school is really interested in their families and become extremely sociable and willing to cooperate.

This system provides that the net profits from a school-home project belong to the pupil and must be banked, loaned, or wisely expended The making, expending, and saving of money is practically taught in this way, as each pupil is obliged to keep an itemized account of his receipts and expenditures. Business principles are inculcated. Initiation and "stick-to-it-iveness" are developed as each pupil must start and carry through to completion at least one school-home project each year.

We are all human and like to be praised when we have done anything worthy of praise. Realizing this as a worthy motive, we have introduced the achievement idea. All pupils who successfully carry through a school-home project are publicly granted an achievement emblem, consisting of a four-pointed star. The emblem has eight holes. It is awarded to the pupil on the completion of his first school-home project. Year after year silver stars are welded in the emblem as a recognition for completion of further projects. A magazine, *Achievement*, devoted to the interests of the pupils carrying on school-home projects, is published annually.

It can be truly stated that the pupils, parents, and teachers have been benefited. Pupils have been benefited financially. They have been taught thrift, industry, business methods, and the dignity of labor, and a real interest in home life. This kind of education fits them for lives of usefulness and success. Teachers have seen a new

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vision by being brought in direct contact with the parents, while the parents have been brought to realize how necessary is cooperation.

School-home projects bring about good team work between the father and son, the daughter and mother, and between parents, teachers, and pupils; in fact, between everybody concerned.

RURAL SUPERVISION IN VERMILION COUNTY, IND.

This particular county is made up of five townships. The county superintendent convinced the township trustees of four of these that better supervision was necessary, resulting in their combining in two groups, each group engaging a supervisor to work under the direction of the county superintendent. The supervisors had no administrative duties, and each could devote all of her time to supervision. The first three or four weeks were given to visiting schools and helping the teachers in the details of the work, making out programs, classifying pupils, reporting needs in the way of books and equipment to the township trustees, and making suggestions to the teachers incidentally on methods of work. Home economics and agriculture were being introduced, hence the two supervisors, working in cooperation, made monthly outlines for work in these subjects. Teachers' meetings were organized and held one evening of each week at convenient places where six or eight of the teachers could come together. During the first series of meetings, the problems of the different teachers were taken up, and the supervisor directed these from the standpoint of the fundamental principles of teaching. The teachers read Bagley's *Educational Values* and Rowe's *The Physical Nature of the Child.* The discussion of these books led into a discussion of methods of teaching.

The second series of meetings consisted in a study of the method of teaching grammar for the teachers in the upper grades and methods of teaching primary reading for the teachers of the primary and intermediate grades. The supervisors supplemented this work with outlines and suggestions. During school hours the supervisor spent most of her time in the schoolroom cooperating with the teacher in teaching these subjects by applying the methods discussed in the teachers' meetings.

Systematic work in other subjects was not undertaken at this time, but the special successes of the different teachers were reported, and this served as a stimulus to them to grow. Particularly good work in reading and oral language was emphasized, and a reading day

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was given in which the children of one township met in the rooms of one of the consolidated schools and the best readers from the different schools read a selection or told a story.

Tests for speed and accuracy in arithmetic were given throughout the townships, which resulted in increasing interest on the part of the children and helped teachers to form the habit of reporting to the supervisor, as well as bringing their special problems and interests for her approval or suggestion.

At the close of the school year the township trustees requested the supervisor to make suggestions in hiring and placing teachers, and each township gave $250 for the purchase of books and equipment. The result of this was that the teachers were more satisfactorily placed and selected, and a number of supplementary reading books purchased for each school.

A detailed course in language and reading was planned during the summer, and each school was provided with a list of poems, stories, and books to be read in each grade. The teachers' meetings in the early fall were given over to the methods of teaching reading and language according to the outlines provided. Such books as Cooley's *Teaching of Language* and McClintock's *Elementary Literature* were studied by the teachers. At these meetings the teachers rather than the supervisor did the work. Dramatization was promoted and encouraged by permitting the children who did good work to give plays attended by the children in the other schools.

Uniform methods of reporting absence and tardiness, use of uniform composition paper and tablets, the correlation of agriculture and hygiene with the interests and needs of the community emphasized the necessity of better cooperation with the patrons and citizens, and boys' and girls' clubs were organized as a means to accomplish this. The superintendent secured an illustrated lecture on beautifying the farm. Lecturers were procured and lectures given in five or six of the different communities. The farmers' institute, already organized, cooperated, and a school exhibit was held. In this exhibit all the children cooperated and were given an opportunity not only to participate themselves, but to see what other children were doing. Through the cooperation of the president of the State parent-teachers' association, branches were organized in the three consolidated schools. This same organization provided an illustrated lecture on health conditions in the schools and the need of better school buildings. These activities do not represent completed plans, but means of paving the way for more professional and systematic work in the rural schools and better cooperation with the homes.

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RURAL SUPERVISION IN A COUNTY OF TENNESSEE.

By Miss Jennie Burkes, Superintendent of Schools, Claiborne County, Tenn.

Claiborne County lies in the Cumberland Mountains of east Tennessee and is a typical mountain county as far as ruggedness, bad roads, and low property assessment are concerned.

Three years ago the county was confronted with every problem known to education—short term, poor pay, bad buildings, no equipment. Our most valuable asset was a county board of education, consisting of men who had little schooling, but an abundance of common sense, rugged honesty, wholesome spirit, and willingness to do something for the betterment of the schools.

We learned that every board of education should have a clearly defined, definitely planned school policy; so our slogan for the first year became *Better schools* and a *Longer school term.* After a series of educational campaigns, conducted in every district of the county, the court met and raised our public-school levy from 35 to 60 cents, which, in turn, raised our school term from three and one-half months to five months and allowed better salaries for our teachers.

Before our schools opened, the teachers were assembled in a county institute for three weeks, where they were given special training along the public-school subjects and a little psychology.

With the courage which only the inexperienced know, we took our schools out of politics, abandoned recklessly old, and established a new, order of administration. The last straw fell when the board employed a rural supervisor of schools. The people considered this action a piece of unheard-of extravagance and questioned its legality. The court, at its next session, took up the matter and voted against the employment of a supervisor by a majority of 17 to 5. When this honorable body were told that they had absolutely nothing to do with the hiring of a supervisor, they settled back with this question: "What *will* she do next?"

The answer came a few weeks later, when the county, State, and Federal Government, under the Smith-Lever bill, employed a county agricultural agent to help the farmers in their work. We hope that these agricultural object lessons will speedily bring about an economic revolution, because it is an economic problem, fundamentally, that our mountain people have to face.

The indifference of the country people toward the schools and the unsightly school buildings and grounds compelled us to adopt for our slogan for the second year *A school improvement association for every school.*

Appropriations from the county and State made it possible to have a very much better institute for the teachers the second year.

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For four weeks some of the best educators of the State gave a course, including practical psychology, public-school music, primary methods, story-telling, games and plays, agriculture, home economics, and special lectures on history, English, and sanitation. At the close of this institute the teachers unanimously adopted 36 items of standardization, including the following:

Library and bookcase.
Drinking fountain or water cooler, with individual cups.
Flowers in yard, on table, or in window.
Sanitary outhouses.
Two pictures well framed, and additional picture each year.
Proper ventilation.
Proper heating.
Minimum of at least three public gatherings at school.
Visiting every home or reason for failure.
Domestic arts at home or school; two exhibits from at least one-half of the girls.
Manual training at home or school; an exhibit at close of school from at least one-half of the boys.

Every school that complies with 75 per cent of the items of standardization will be classed a "standard school"; 85 per cent a "superior school."

This was a very progressive and courageous step the teachers had taken, when it is considered that the best-equipped school in the county at that time could not measure up to half standard. Every school made an effort toward standardization, and through the earnest work of teachers, patrons, and pupils, at the close of the school year out of the 102 schools there were 29 superior schools and 52 standard schools.

We know that our schools have not fulfilled their whole mission until they reflect the everyday life and activities of the country people, so our slogan for the past year became *Better education for all.* Through the volunteer service of some of our teachers a number of moonlight schools were organized, and nearly 100 adult illiterates were taught to read and write, while scores of men and women extended their education along subjects of their choice.

In the mountain section the one-teacher school is at present a necessity, but we believed that in our valleys consolidation was possible, roads or no roads, if the people really wanted it. We argued, "If good roads will bring consolidation of schools, why won't consolidated schools bring good roads?" The State and county each appropriated $1,000 to foster the idea of consolidation, and this $2,000 was offered to the community that would raise the largest amount toward the construction of a model consolidated school building. And to-day there stands in Powells Valley, on 7 acres of land, a beautiful brick building, where the children from three 1-teacher

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schools and one 2-teacher school are enjoying advantages they never knew before.

At its very next session the county court issued pike-road bonds to the amount of $377,000, so that good roads may go hand in hand with good schools in Claiborne County.

This year our increased assessment will give us at least a six-months' school term. Teachers' salaries have been raised until we shall not hold a county institute, but require our teachers to attend a State normal school or the Summer School of the South. Another county agent, under the Smith-Lever bill,[1] has been employed to organize girls' canning clubs and to do extension work in home economics.

[1] Federal act approved May 8, 1914 (38 Stat. L., 372), giving financial assistance to the States for cooperative agricultural extension work.

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IV. STATISTICAL TABLES.

E 4.—*Number of buildings, teachers, etc., per superintendent, and number of visits per school year—Averages by States.*

States.	Total number of counties.	Superintendents reporting.	School buildings.	One-teacher buildings.	Number of teachers.	Square miles in supervisory district.	Number of field assistants.		Number of office assistants.		Per cent of superintendents' time spent in supervision.	Number of visits to each school per year.	Average time (hours) spent in each school.
							Full time.	Part time.	Full time.	Part time.			
ecticut	.....	9	12	5	32	34	.....	7	....	2	55	21+	0.75
e	.....	23	20	15	37	93	2	....	....	....	60	11	1.00
achusetts	.....	27	13	5	38	62	[1] 45	....	2	2	65	24	1.00
Hampshire	.....	7	19	10	36	32	.....	....	1	....	70	20	1.00
de Island	.....	4	13	10	20	42	.....	....	....	....	42	10	1.00
mont	.....	28	35	19	40	110	2	....	....	....	80	12	1.50
Total	.....	98	.....	.....	.....	.....	49	7	3	4	.....	.....	.....
Average	.....	.....	18+	10+	34−	62+	.....	....	....	....	62	16+	1+
York	[2] 207	130	52	44	82	254	.....	....	2	1	51	3	2.00
ama	67	22	85	67	114	790	10	....	4	....	47	2	2.00
ona	14	10	43	23	110	7,178	.....	....	2	....	38	2+	1.00
ansas	75	14	83	68	122	708	.....	....	....	....	57	2	2.70
fornia	59	21	59	45	109	542	3	....	9	1	38	1	2.00
rado	63	32	54	43	83	1,977	.....	....	2	2	36	2	.....
aware	3	2	146	115	240	1,000	.....	....	....	1	74	2+	.75
ida	50	11	61	37	99	898	1	....	4	....	41	2−	1.60
rgia	152	46	51	36	73	822	5	1	3	1	36	2+	2.00
ho	37	13	51	40	93	2,960	.....	....	5	3	33	1+	2.40
ois	102	46	113	99	217	547	6	....	15	2	40	1+	2.00
iana	92	56	86	69	167	407	14	....	20	8	31	2−	1.00
a	68	50	139	123	200	605	5	....	28	1	38	1+	1.00
sas	105	68	87	78	111	764	1	....	7	2	29	1+	2.00+
tucky	120	32	66	57	85	374	6	16	5	1	30	2−	2.50
isiana	61	30	43	39	86	670	9	....	6	1	36	2+	2.00
ryland	24	12	100	79	176	365	7	....	5	....	48	2+	1.00
higan	83	42	106	88	168	582	2	2	16	....	37	2	1.50
nesota	86	63	99	88	132	873	12	1	12	....	34	2	2.00+
sissippi	80	12	99	73	125	576	.....	....	....	....	24	1+	2.00−
souri	114	50	89	78	115	747	.....	....	....	2	33	1	2.00
ntana	41	12	58	41	88	2,861	.....	....	4	....	35	1+	1.50
braska	93	52	81	72	110	816	.....	....	4	4	32	1	1.00
w Jersey	21	12	90	48	287	516	3	....	12	....	58	3	1.00
w Mexico	26	8	56	44	81	6,112	.....	....	1	....	40	2	2.00
rth Carolina	100	33	81	49	122	500	15	....	8	....	40	1	2.00
rth Dakota	52	35	100	96	107	1,076	16	....	26	....	34	2	2.00
io	88	49	114	101	174	463	[3] 206	....	15	1	46	1	1.00+
ahoma	79	49	87	66	140	1,051	7	....	25	5	32	1+	2.00
gon	35	12	64	48	108	2,380	3	....	7	....	48	2+	2.00+
nnsylvania	66	35	217	166	354	630	32	....	7	....	58	2−	1.00
uth Carolina	44	14	77	43	28	587	6	....	2	....	24	1	1.50
uth Dakota	63	27	88	82	102	1,356	2	2	4	4	25	1+	1.00
nnessee	96	38	62	42	90	350	8	1	1	....	25	1+	2.00
xas	257	78	51	31	87	1,421	2	....	1	....	27	1+	1.00
tah	27	7	26	7	95	2,290	12	....	6	1	44	3	1.00+
rginia	102	25	81	56	130	815	7	....	....	....	33	2	1.00
shington	39	25	81	54	174	1,795	7	2	11	2	33	1+	1.50
st Virginia	55	25	116	94	150	361	21	....	....	....	33	1	2.00
sconsin	60	53	107	95	145	709	6	....	20	19	45	1+	1.50
oming	21	10	48	39	72	5,370	.....	....	....	1	35	1+	2.00
Average for 40 States [4]	.....	.....	84	65	130	1,672	.....	....	....	....	40	.....	.....

[1] Includes special supervising teachers.
[2] Supervisory districts.
[3] Township superintendents; paid by townships.
[4] Omitting New England, Nevada, and New York.

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TABLE 5.—*Salaries of county or other rural superintendents—Number receiving.*

States.	Less than $300.	$300 to $500.	$500 to $700.	$700 to $900.	$900 to $1,200.	$1,200 to $1,500.	$1,500 to $1,800.	$1,800 to $2,100.	$2,100 to $2,400.	$2,400 to $2,700.	$2,700 to $3,000.	$3,000 or more.	Maximum.	Number of counties reporting.	Total number of counties.
Connecticut	[1] 1	[1] 2	....	....	....	....	4	2	2	1	....	....	$2,500	9	....
Maine	....	....	....	....	....	9	7	3	1	....	....	....	2,200	23	....
Massachusetts	....	....	....	....	....	....	6	14	4	3	....	....	2,650	27	....
New Hampshire	....	....	....	....	....	....	2	4	1	....	....	....	2,200	7	....
Rhode Island	[1] 1	[1] 2	....	....	....	....	1	....	....	....	....	....	1,500	4	....
Vermont	....	....	....	....	....	....	19	8	1	....	....	....	2,100	28	....
New York	....	....	....	....	....	110	9	9	....	....	....	2	3,600	130	....
Alabama	....	....	....	1	4	5	8	3	....	....	....	1	3,000	22	67
Arizona	....	....	....	....	2	2	2	2	....	2	....	....	2,400	10	14
Arkansas	....	....	....	1	2	8	2	....	....	1	....	....	2,400	14	73
California	....	....	2	....	2	....	4	6	1	3	....	3	4,000	21	58
Colorado	....	....	6	5	9	8	....	4	....	....	....	....	2,000	32	60
Delaware	....	....	....	....	....	2	....	....	....	....	....	....	1,200	2	3
Florida	....	....	....	....	2	4	1	2	1	1	....	....	2,400	11	39
Georgia	....	2	6	8	12	12	3	2	....	....	1	....	2,700	46	132
Idaho	....	....	....	....	4	5	3	1	....	....	....	....	1,800	13	37
Illinois	....	....	....	....	....	5	14	19	3	3	2	1	7,500	46	102
Indiana	....	....	....	....	1	53	....	....	....	2	....	....	2,400	56	92
Iowa	....	....	....	....	....	8	37	4	....	1	....	....	2,650	50	99
Kansas	....	....	9	7	4	46	1	2	....	....	....	....	1,800	68	105
Kentucky	....	....	6	9	6	5	5	1	....	....	....	....	1,800	32	120
Louisiana	....	....	....	....	1	10	7	7	3	1	....	1	3,000	30	61
Maryland	....	....	....	1	1	4	1	4	1	....	....	....	2,250	12	24
Michigan	....	4	1	2	4	10	11	8	1	1	....	....	2,500	42	83
Minnesota	....	....	2	2	13	15	14	15	1	....	1	....	2,750	63	86
Mississippi	....	....	....	....	3	6	1	2	....	....	....	....	1,800	12	80
Missouri	....	....	....	9	21	18	2	....	....	....	....	....	1,650	50	114
Montana	....	....	....	3	....	3	6	....	....	....	....	....	1,500	12	41
Nebraska	....	2	....	1	11	28	8	2	....	....	....	....	2,200	52	93
New Jersey	....	....	....	....	....	....	....	....	....	....	....	12	3,000	12	21
New Mexico	....	....	....	....	....	1	1	6	....	....	....	....	2,000	8	26
North Carolina	....	....	4	2	7	5	13	1	....	1	....	....	2,400	33	100
North Dakota	....	....	....	....	....	2	26	7	....	....	....	....	2,000	35	52
Ohio	....	....	....	....	....	1	8	16	10	9	2	3	3,600	49	88
Oklahoma	....	....	....	....	....	39	7	3	....	....	....	....	2,000	49	70
Oregon	....	....	....	....	1	8	2	1	....	....	....	....	1,800	12	35
Pennsylvania	....	....	....	....	....	....	4	12	3	7	1	8	7,000	35	66
South Carolina	....	....	1	4	6	1	1	1	....	....	....	....	1,800	14	44
South Dakota	....	....	1	3	9	6	8	....	....	....	....	....	1,500	27	63
Tennessee	2	5	7	12	5	3	3	....	....	1	....	....	2,400	38	96
Texas	6	7	13	2	3	17	30	....	....	....	....	....	1,500	78	257
Utah	1	1	....	....	....	....	1	2	....	1	1	....	3,400	7	27
Virginia	....	2	....	1	8	7	3	3	1	....	....	....	2,160	25	100
Washington	....	....	2	4	6	8	....	5	....	....	....	....	2,000	25	39
West Virginia	....	....	....	1	14	8	....	2	....	....	....	....	1,900	25	55
Wisconsin	....	....	....	....	16	25	9	2	....	1	....	....	2,500	53	69
Wyoming	....	....	4	4	2	....	....	....	....	....	....	....	900	10	21
Forty States	11	27	64	82	179	506	293	185	34	38	8	32	7,500	.....	.....

[1] Part time.

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TABLE 6.—*County, district, and township superintendents—Salaries, office expenditures, and salaries of assistants.*

States.	Total number of counties.	Number reporting.	Salary.			Allowance for traveling.				Allowance for office expenditures (traveling expenses included) and assistants.			
			Maximum.	Minimum.	Average.	Number of counties making.	Maximum.	Minimum.	Average.	Number of counties making.	Maximum.	Minimum.	Average.
Connecticut	.....	9	$2,500	$1,500	$1,833	4	$450	0	$50	6	$1,000	$150	$217
Maine	.....	23	2,200	250	1,357	2	750	0	39	11	750	0	83
Massachusetts	.....	27	2,650	1,500	1,912	7	100	0	10	21	3,650	0	250
New Hampshire	.....	7	2,200	1,600	1,850	....	.....	.....	....	2	300	0	70
Rhode Island	.....	4	1,500	200	600	1	200	0	50	1	200	0	50
Vermont	.....	28	2,100	1,500	1,644	22	100	0	80	27	600	0	56
Total	.....	98	.....	.....	.....	36	.....	.....	....	68	.....	.....	.....
Average	.....	.....	.....	.....	1,535	....	.....	.....	46	.....	.....	.....	120
New York	.....	130	3,600	1,200	1,315	130	500	$150	300	130	1,500	100	400
Alabama	67	22	3,000	875	1,464	....	.....	.....	....	14	1,500	0	287
Arizona	14	10	2,400	900	1,620	9	500	0	255	10	4,700	1,000	2,223
Arkansas	75	14	2,400	800	1,293	1	.....	.....	....	11	500	0	119
California	59	21	4,000	600	1,910	19	1,250	0	364	21	12,500	100	3,974
Colorado	63	32	2,000	500	1,070	28	300	0	175	28	900	0	255
Delaware	3	2	1,200	1,200	1,200	2	600	500	550	2	1,200	500	850
Florida	50	11	2,400	1,000	1,490	5	400	0	119	8	1,600	0	557
Georgia	152	46	2,700	450	1,053	24	300	0	75	36	2,300	0	221
Idaho	37	13	1,800	1,000	1,317	12	1,000	0	563	13	1,800	200	1,067
Illinois	102	46	7,500	1,250	1,915	19	900	0	124	42	2,980	0	730
Indiana	92	56	2,400	900	1,434	56	100	100	100	56	1,600	200	401
Iowa	68	50	2,650	1,250	1,516	50	285	178	250	50	3,450	250	732
Kansas	105	68	1,800	500	1,156	60	280	0	101	65	700	0	182
Kentucky	120	32	1,800	600	1,026	20	400	0	90	27	1,500	0	243
Louisiana	61	30	3,000	1,000	1,613	22	500	0	166	28	4,070	0	711
Maryland	24	12	2,250	800	1,185	9	600	0	185	12	2,020	200	1,213
Michigan	83	42	2,500	300	1,364	36	500	0	204	38	6,735	0	801
Minnesota	86	63	2,750	500	1,420	49	600	0	791	54	4,200	0	1,967
Mississippi	80	12	1,800	1,000	1,290	....	.....	.....	....	10	200	0	89
Missouri	114	50	1,650	700	1,079	1	17	0	....	39	2,300	0	1,045
Montana	41	12	1,500	800	1,250	12	500	78	302	12	2,000	300	914
Nebraska	93	52	2,200	400	1,319	20	500	0	71	37	1,750	0	300
New Jersey	21	12	3,000	3,000	3,000	12	350	350	350	12	1,200	800	1,000
New Mexico	26	8	2,000	1,400	1,762	....	.....	.....	....	8	587	100	285
North Carolina	100	33	2,400	600	1,242	19	300	0	81	31	4,600	0	556
North Dakota	52	35	2,000	1,200	1,674	34	1,000	0	425	35	6,000	92	1,900
Ohio	88	49	3,600	1,200	2,132	32	300	0	171	45	5,000	0	554
Oklahoma	79	49	2,000	1,200	1,393	46	600	0	218	49	2,650	100	795
Oregon	35	12	1,800	1,000	1,296	12	800	100	275	12	4,500	200	1,420
Pennsylvania	66	35	7,000	1,500	2,402	....	.....	.....	....	35	13,900	50	1,734
South Carolina	44	14	1,800	600	1,005	14	200	50	118	14	2,100	100	454
South Dakota	63	27	1,500	600	1,216	27	200	200	200	27	2,000	200	1,098
Tennessee	96	38	2,400	230	832	3	200	0	10	17	1,200	0	130
Texas	257	78	1,500	750	808	....	300	0	....	56	1,180	25	326
Utah	27	7	3,400	50	1,800	3	400	0	120	7	9,500	350	4,265
Virginia	102	25	2,160	320	817	7	655	0	57	17	1,050	0	625
Washington	39	25	2,000	500	1,180	25	800	60	410	25	4,567	270	600
West Virginia	55	26	1,900	700	1,108	....	.....	.....	....	16	700	0	137
Wisconsin	60	53	2,500	1,000	1,267	53	500	100	271	53	3,500	200	849
Wyoming	21	10	900	600	720	10	500	100	300	10	500	125	318
Forty States	2,820	1,460	.....	.....	.....	917	1,200	.....	170	1,280	13,900	.....	788

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TABLE 7.—*County superintendents—Term and election.*[1]

State.	Total number county superintendents.	Date of beginning of present term.	Number serving first term.	Percentage of all county superintendents serving first term.	Elected at regular general election.	Name on same ballot as other officers.	Special ballot.	Elected at special election.
Alabama	67	Oct. 1, 1913	29	43	X	X		
Arizona	14	Jan., 1914	8	57	X	X		
Arkansas	25	Nov. 1, 1914	6	24	X	X		
California	58	Jan. 1, 1915	23	40	X	X		
Colorado	63	Jan., 1914	39	62	X	X		
Delaware	3	July, 1915	0					
Florida	52	Jan., 1913	25	48	X	X		
Georgia	152	Jan. 1, 1913	60	39				
Idaho	37	Jan. 11, 1915	16	43	X	X		
Illinois	102	Nov. 3, 1914	41	40	X	X		
Indiana	92	June, 1911	39	42				
Iowa	99	Sept. 1, 1915	21	21				
Kansas	105	May, 1915	45	43	X	X		
Kentucky	120	Jan. 1, 1914	67	56	X	X		
Louisiana	64	July, 1913	22	34				
Maryland	23	Aug. 1, 1914	2	9				
Michigan	83	July 1, 1915	22	26	X	X		
Minnesota	86	Jan. 1, 1915	24	28	X		X	
Mississippi	80	Jan. 1, 1916	46	57	X	X		
Missouri	114	Apr., 1915	47	42				X
Montana	41	Jan., 1915	19	46	X	X		
Nebraska	93	Jan. 1, 1915	44	47	X	X		
New Jersey	21		4	19				
New Mexico	26	Jan. 15, 1912	19	73	X	X		
North Carolina	100	July, 1915	17	17				
North Dakota	52	Jan. 1, 1915	22	42	X		X	
Oklahoma	77	July 1, 1915	27	35	X	X		
Oregon	35	Jan. 1, 1913	21	60	X	X		
Pennsylvania	66	June 1, 1914	12	18				
South Carolina	44		18	40	X	X		
South Dakota	63	Jan. 5, 1915	37	58	X	X		
Tennessee	96	Jan., 1915	26	27				
Texas	126	——, 1914	56	44	X	X		
Utah	34	July, 1915	10	29				
Virginia	103	July 1, 1913	18	17				
Washington	39	Sept. 1, 1915	18	46	X	X		
West Virginia	55	July 1, 1915	36	65	X	X		
Wisconsin	72	Spring, 1915	9	12				X
Wyoming	21	Jan. 1, 1915	11	53	X	X		

[1] Data compiled in January, 1916, and refer to superintendents then in office.

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TABLE 8.—*Education and experience of county and other rural superintendents.*

State.	Total number of counties.	Number reporting.	General education of superintendents.										Average number of years in present position.	Previous experience (years) in teaching.
				Secondary school.				Higher education.						
			Elementary school only.	One year.	Two years.	Three years.	Four years.	Less than 1 year.	One year.	Two years.	Three years.	Four years or more.		
Connecticut	.....	9	.....	.....	.....	.....	.....	.....	.....	2	.....	7	6	13
Maine	.....	23	.....	.....	.....	.....	.....	.....	2	1	2	18	3	10
Massachusetts	.....	27	.....	.....	.....	.....	.....	.....	.....	3	.....	24	6	15
New Hampshire	.....	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	7	3½	18
Rhode Island	.....	4	.....	.....	.....	.....	2	.....	.....	.....	.....	2	7	3
Vermont	.....	28	.....	.....	.....	.....	1	.....	.....	4	.....	23	4	11
Total	.....	.....	.....	.....	.....	.....	[1] 3.1	.....	[1] 2.0	[1] 10.2	[1] 2.0	[1] 82.7	[2] 5.0	[2] 11⅔
New York	207	130	.....	4	3	6	13	3	13	31	16	41	5	6½
Alabama	67	22	.....	3	2	3	5	....	6	.....	1	2	6	3
Arizona	14	10	1	.....	1	.....	1	....	4	.....	1	2	2½	8
Arkansas	75	14	.....	.....	1	1	4	....	1	2	1	2	3½	12
California	59	21	9	1	1	2	.....	....	2	4	1	1	5½	13
Colorado	63	32	2	.....	.....	1	12	2	5	6	2	4	2+	9½
Delaware	3	2	.....	.....	.....	.....	.....	.....	.....	1	.....	1	4½	16½
Florida	50	11	3	.....	2	2	.....	2	.....	.....	.....	2	4	6
Georgia	152	46	3	1	3	2	9	....	5	9	6	8	12	10
Idaho	37	13	1	.....	.....	.....	1	2	.....	3	.....	6	4	5
Illinois	102	46	8	.....	.....	1	12	4	7	9	.....	5	5	3
Indiana	92	56	.....	.....	2	.....	5	3	7	9	5	25	7	12
Iowa	68	50	.....	2	.....	.....	17	....	8	11	2	10	4½	9
Kansas	105	68	7	.....	3	5	18	1	8	18	3	5	2+	10
Kentucky	120	32	1	.....	4	6	8	....	6	3	4	.....	3½	10
Louisiana	61	30	1	.....	.....	1	3	....	3	8	2	12	6	6
Maryland	24	12	.....	.....	1	1	.....	1	.....	2	.....	7	6	17
Michigan	83	42	.....	.....	2	4	8	....	7	11	4	6	6	11
Minnesota	86	63	6	.....	2	5	8	6	17	3	5	11	5	9
Mississippi	80	12	.....	.....	2	4	1	....	1	1	1	2	10	6
Missouri	114	50	1	2	2	3	6	2	8	8	9	9	3+	11
Montana	41	12	.....	1	.....	.....	2	....	3	2	.....	4	3	9
Nebraska	93	52	.....	.....	.....	4	5	1	13	15	1	13	2½	8
New Jersey	21	12	.....	.....	.....	.....	.....	2	.....	2	1	7	7½	14
New Mexico	26	8	.....	.....	1	1	1	....	.....	2	.....	3	4	9
North Carolina	100	33	2	1	1	.....	3	....	2	3	6	15	5	4
North Dakota	52	35	.....	.....	.....	.....	3	....	5	4	3	20	2½	8
Ohio	88	49	.....	.....	.....	.....	.....	....	1	.....	7	41	1+	16
Oklahoma	79	49	.....	1	4	1	13	2	4	12	6	6	2	8
Oregon	35	12	.....	.....	.....	.....	6	2	.....	4	.....	.....	4½	1½
Pennsylvania	66	35	1	.....	.....	.....	4	4	2	6	.....	18	9	11
South Carolina	44	14	1	1	.....	.....	4	3	.....	3	.....	2	4	5
South Dakota	63	27	4	2	.....	.....	13	3	.....	3	.....	2	2½	9
Tennessee	96	38	2	.....	2	.....	9	3	2	12	.....	8	4	7
Texas	257	78	15	6	1	.....	30	7	6	7	.....	3	3	7
Utah	27	7	.....	.....	.....	.....	.....	.....	1	1	.....	5	2	14
Virginia	102	25	.....	4	1	.....	3	4	.....	9	.....	4	7	6
Washington	39	25	.....	4	.....	1	3	5	3	3	.....	6	3	10
West Virginia	55	26	4	7	.....	.....	5	2	3	2	.....	3	5	7
Wisconsin	60	53	.....	7	.....	.....	20	13	.....	8	.....	5	6	8½
Wyoming	21	10	.....	1	2	.....	2	1	1	2	.....	1	2½	11
Forty States	.....	.....	[1] 5.8	[1] 3.7	[1] 3.5	[1] 4.0	[1] 20.0	[1] 6	11	[1] 17	[1] 6.0	[1] 22	[2] 4.5	[2] 8.0

[1] Per cent. [2] Average.

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TABLE 9.—*General education of county and other rural superintendents, by groups of States.*[1]

States.	Total number of superintendents.	Number reporting.	Number having elementary education only.	Number having secondary education only.				Number having	
				One year.	Two years.	Three years.	Four years.	Less than one year.	One year.	Two years.
NEW ENGLAND STATES.										
Connecticut		9								2
Maine		23							2	1
Massachusetts		27								3
New Hampshire		7								
Rhode Island		4					2			
Vermont		28					1			4
Total, in per cent							3.1		2.0	10.2
New York	207	130		4	3	6	13	3	13	31
Percentage				3.1	2.3	4.6	10.0	2.3	10.0	23.8
APPOINTED BY COUNTY BOARDS, ETC.										
Delaware	3	2								1
Indiana	92	56			2		5	3	7	9
Iowa	99	50		2			17		8	11
Louisiana	61	30	1			1	3		3	6
Maryland	24	12			1	1		1		2
New Jersey	21	12						2		2
North Carolina	100	33	2	1	1		3		2	3
Ohio	88	49							1	
Pennsylvania	66	35	1				4	4	2	6
Tennessee	96	38	2		2		9	3	2	12
Utah	27	7							1	1
Virginia	102	25		4	1		3	4		9
Total, in per cent			1.7	2.6	2.0	.5	12.6	4.9	7.4	18.3
ELECTED FOR 4-YEAR TERM.										
Alabama[2]	67	22		3	2	3	5		6	
California	59	21	0	1	1	2			2	4
Florida	50	11	3		2	2		2		
Georgia	152	46	3	1	3	2	9		5	9
Illinois	102	46	8			1	12	4	7	9
Kentucky	120	32	1		4	6	8		6	3
Michigan	83	42			2	4	8		7	11
Mississippi	80	12			2	4	1		1	1
Missouri	114	50	1	2	2	3	6	2	8	8
Oregon	35	12					6	2		4
West Virginia	55	26	4	7			5	2	3	2
Total, in per cent			9.1	4.4	5.6	8.4	18.8	3.8	14.1	15.0
ELECTED FOR 2-YEAR TERM.										
Arizona	14	10	1		1		1		4	
Arkansas	75	12			1	1	4		1	2
Colorado	63	32	2			1	12	2	5	6
Idaho	37	13	1				1	2		3
Kansas	105	68	7		3	5	18	1	8	15
Minnesota	86	63	6		2	5	8	6	17	3
Montana	41	12		1			2		3	2
Nebraska	93	52				4	5	1	13	15
New Mexico	26	8			1	1	1			2
North Dakota	52	35					3		5	4
Oklahoma	77	49		1	4	1	13	2	7	12
South Carolina	44	14	1	1			4	3		3
South Dakota	63	27	4	2			13	3		3
Texas	257	78	15	6	1		30	7	6	7
Washington	39	25		4		1	3	5	3	3
Wisconsin	60	53		7			20	13		8
Wyoming	21	10		1	2		2	1	1	2
Total, in per cent			6.6	4.2	2.7	3.4	25.0	8.2	12.5	16.6

[1] Data compiled in fall of 1915.

[2] Alabama changed from elective to appointive system Jan. 1, 1917.

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10.—*Terms of service of county and other rural superintendents, by groups of States.*[1]

States.	Per cent of total reporting.	Number serving first term.	Number serving second term.	Number serving third or more than third term.	Number served 4 years but less than 8 years.	Number served 8 or more years.	Maximum number of years served by any superintendent.
W ENGLAND STATES.							
icut	.....	3	4	2	4	1	18
	.....	8	5	10	3	1	16
usetts	.....	11	9	7	6	6	17
mpshire	.....	2	1	4	2	.....	7
sland	.....	1	.....	3	.....	1	20
t	.....	7	4	17	12	.....	8
otal, in per cent	.....	32.7	23.5	43.9	27.6	9.2	.....
ork [2]	.....	.....	.....	.....	.....	.....	.....
TED BY COUNTY BOARDS, ETC.							
re	66.7	1	.....	1	1	.....	7
	60.9	24	18	14	18	14	20
	73.5	14	16	20	17	3	17
na	49.2	14	9	7	9	7	19
nd	50.0	2	4	6	3	3	19
rsey	57.1	4	1	7	2	5	20
Carolina	33.0	15	6	12	2	10	20
	.....	.....	.....	.....	.....	.....	.....
lvania	53.0	12	9	14	9	14	22
ssee	39.6	8	12	18	13	5	16
	25.9	4	2	1	1	.....	6
ia	24.5	8	9	8	9	8	30
Total, in per cent	45.5	35.3	28.7	36.0	28.0	23.0	.....
ED FOR 4-YEAR TERM.							
ma [4]	32.8	9	9	4	9	4	22
rnia	35.6	10	5	6	5	6	.....
a	22.0	6	5	.....	5	.....	7
ia	30.3	20	14	12	14	12	24
is	45.0	25	12	9	12	9	16
cky	26.7	21	10	1	10	1	13
gan	50.6	20	11	11	11	11	22
sippi	15.0	5	2	5	2	5	20
url	43.9	32	18	.....	18	.....	8
n	34.3	8	2	2	2	2	9
Virginia	45.5	14	9	2	9	.....	4
Total, in per cent	34.8	53.3	30.4	16.3	30.4	15.7	.....
CTED FOR 2-YEAR TERM.							
na	71.4	6	2	2	2	.....	6
nsas	18.7	3	7	4	4	.....	5
rado	50.8	21	8	3	3	.....	7
o	35.1	6	2	5	3	2	9
sas	64.8	49	13	6	5	1	10
nesota	73.3	20	16	27	16	11	25
tana	29.3	7	2	3	2	1	9
raska	55.9	34	6	12	10	2	12
Mexico	30.8	1	5	2	2	.....	.....
th Dakota	67.3	16	9	10	8	2	11
ahoma	62.0	31	12	6	6	.....	6
th Carolina	31.8	8	.....	6	5	1	10
th Dakota	42.9	15	8	4	3	1	12
as	28.2	36	24	18	15	3	29
shington	64.1	13	10	2	2	.....	8
sconsin	88.3	11	20	22	8	14	22½
oming	66.7	8	4	2	2	.....	5
Total, in per cent	48.25	50.3	26.1	23.6	16.9	6.7	.....

[1] Data compiled in fall of 1915.
[2] All serving first term, as system was first put in operation January, 1912.
[3] All serving first term, under new law.
[4] Alabama changed from elective to appointive system Jan. 1, 1917.

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DEPARTMENT OF THE INTERIOR
BUREAU OF EDUCATION

BULLETIN, 1916, No. 49

MEDICAL INSPECTION OF SCHOOLS IN GREAT BRITAIN

By E. L. ROBERTS

CHIEF MEDICAL EXAMINER OF PUBLIC SCHOOLS
NASHVILLE, TENN.

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MEDICAL INSPECTION OF SCHOOLS IN GREAT BRITAIN.[1]

I. HISTORY.

England and Wales.—School medical inspection in Great Britain as now conducted is the cumulative result of a number of legislative acts. Some of these were not specifically medical inspection acts, but inevitably implied medical inspection for their successful operation. The Blind and Deaf Act, passed in 1893 as an education act, was the first of these. To carry out its provisions for the segregation of the blind, the semiblind, the deaf, and the semideaf, skilled medical cooperation proved necessary and was furnished.

From this care of the blind and the deaf it was an easy and natural step for the education department to give special attention to other mentally or physically defective children. In 1896 a committee of the department was created to investigate the teaching of defective children (not idiots and imbeciles) and to recommend improvements in such instruction. This committee reported in 1898 with a recommendation that each local authority be required to segregate and give special attention to all children in the elementary schools who, on account of mental or physical defect or of epilepsy, could be better taught in special schools. A permissive act was passed in 1899. This has not been adopted universally, but many local authorities have adopted its provisions. The determination of defectives and epileptics in the meaning of the act was delegated to a qualified medical practitioner who must be approved by the education department. This is the first parliamentary act authorizing the employment of physicians for work in the schools, and the work done under it constitutes an important part of school medical inspection in Great Britain.

[1] This bulletin comprises the results of personal investigations supplemented by official reports covering the entire work of medical inspection as developed in Great Britain. The compiler takes this opportunity to acknowledge his indebtedness to the authorities in charge of this work in the centers which he visited for their unfailing courtesy and cordial cooperation in his efforts to obtain an insight into the operations of the extensive system. He would refer in particular to the assistance rendered by the officials of the board of education, England, of the education department of Scotland, of the London medical department, and of the corresponding departments in other cities mentioned in the bulletin.

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The steps leading to medical inspection legislation may be summarized as follows:

(1) In 1902 King Edward VII appointed a royal commission "to inquire into the opportunities for physical training available in the State-aided schools and other educational institutions of Scotland, and to suggest means by which such training might be made to conduce to the welfare of the pupils." The work of the commission soon led to a medical examination of a number of school children. From the Aberdeen schools 600 children were selected, and 600 from the Edinburgh schools. The conditions revealed by the examination were so startling that at first they were regarded as gross exaggerations. Later investigations, however, in England as well as in Scotland, proved that they were not exaggerations, but were such as would on sufficient investigation be generally found.

The report of this commission published in 1903, besides reviewing the work of physical training and making recommendations for its betterment, declared that, though medical inspection was necessary "mainly for remedial effects, it was also necessary in order to make available information of the highest value both for ascertaining the facts of national physique and the means that may be adopted for its improvement, or for retarding such degeneration as may be in progress." The report further recommended that it should be the duty of the school boards to look into cases of insufficient feeding and to take steps to provide through voluntary agencies suitable food.

(2) In 1904 the report of the interdepartmental committee on physical deterioration was published, making recommendations for general, though not rigid, medical inspection. This committee, too, recommended that steps be taken to provide meals for those who would otherwise suffer for lack of them; that all voluntary means be first exhausted; and that as a last resort the school authority be required to furnish these meals. These reports, and others that follow, show that the school authorities early realized that it was often more necessary to feed a subnormal child than it was to dose him on medicine. Statutory establishment of medical inspection was thus inevitable.

(3) In 1905 a committee was appointed by the board of education to discover what was being done by the various local authorities in medical inspection and with what result. This committee found that a total of 66 out of the 328 local authorities in England and Wales had made some sort of beginning in medical inspection. London since 1891 and Bradford since 1893 had had more or less thorough systems of inspection. This committee was also instructed to inquire what was done by voluntary agencies to feed necessitous children; also to suggest ways and means for extending this work. The committee carefully considered the matters of cost, the danger of pauper-

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izing the parent, and the probability of antagonizing the private practitioner. The following sentence in the committee's report is especially worthy of note: "The local authority does not attempt treatment of the children's defects." Obviously the necessity of treatment, as well as diagnosis, was early recognized. An important part of the report was devoted to the question of providing meals for necessitous children.

A succinct summary of the facts and tendencies revealed by this and the preceding reports is given by Sir George Newman, chief medical officer of the board of education, in his first annual report:

> When the terms of this report are considered, together with those of the reports on physical training in Scotland and physical deterioration, it is clear that an overwhelming mass of evidence had been collected which united to present a most convincing case, in the first place, of the physical needs of necessitous and underfed school children, and in the second, for a general system of medical inspection and supervision, with at least the possibility of acting upon the results of inspection by a scheme of treatment.

The evidence presented so far shows a disposition—

(*a*) To segregate those children of the schools who are obviously so defective that more successful means may be employed for their education.

(*b*) To employ the means of medical inspection to discover those defects of children which are not so evident on casual observance.

(*c*) To employ medical treatment for the removal of the defects thus discovered, as well as the more obvious defects.

(*d*) To furnish meals to those children who would otherwise be seriously handicapped in their physical and mental development.

Following these various investigations and recommendations, two bills were passed by Parliament. The first of these, known as the Provision of Meals Act, was passed in 1906. This act gave the local authority permission, under plans approved by the board of education, to furnish meals to necessitous children; but the authority was not obliged to submit its plan to the board unless money was spent out of the "rates," that is, the local taxes. The Education (Administrative Provisions) Act of 1907 contained a clause making medical inspection compulsory for all the local education areas in England and Wales. This was an amendment to the general education acts and imposed upon the local authority—

> the duty to provide for the medical inspection of children immediately before or at the time of or as soon as possible after their admission to a public elementary school, and on such other occasions as the board of education may direct, and the power to make such arrangements as may be sanctioned by the board of education for attending to the health and physical condition of the children educated in public elementary schools.

It will be seen that such power is given to the board of education. There is no evidence, however, that the board ever uses its powers

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arbitrarily or tyranically, though it has the authority to pass upon every plan adopted by any local authority for medical inspection, for medical treatment, or for school feeding involving expenditures out of the rates. In November, 1907, the board, by virtue of the authority given in this act, issued a lengthy "Memorandum on Medical Inspection of Children in Public Elementary Schools," giving full direction to local authorities with regard to putting the law into operation. As the work developed, still other memoranda were issued. These will be considered more in detail later.

One other act of Parliament, though not a medical inspection act in any strict sense of the word, is the Children Act, passed in 1908. It has some provisions in it that enable education authorities to compel parents to do certain things for the physical welfare of their children.

Scotland.—The history of the physical welfare work in Scotland is practically coincident with that of England and Wales. The Blind and Deaf Act for Scotland was passed in 1890, three years before the act for England and Wales, but the act under which the Scotch educate their defective children (other than blind and deaf) was not passed till 1906. The Medical Inspection Act, *per se*, for Scotland was passed in 1908, one year later than the act for England and Wales. This act of Scotland also provides for the furnishing of meals to necessitous children. In 1913 the medical inspection act of 1908 was so amended as to provide medical treatment free to necessitous children. As the board of education is the chief executive body for school work in England and Wales, so the education department of Scotland is the chief body for the northern division of the Kingdom. This department has offices in London and also in Edinburgh. The department issued a memorandum for the guidance of those whose duty it was to put the medical inspection act into effect, and some parts of this memorandum give historical facts sufficiently different from anything yet given to justify their reproduction here:

> The medical inspection of school children provided for by the Education (Scotland) Act, 1908, is the outcome of a steady movement of public opinion throughout the entire community. For some years past evidence has been accumulating that there exists among the people of this nation a degree of physical unfitness that calls for amelioration and, as far as possible, for prevention. No attempt to grapple with the problem can hope to succeed unless it begins by endeavoring to improve both the personal health and the environment of the nation's children. As an initial step toward this end, the legislature has decided that medical inspection of school children is both reasonable and necessary.

Before any act was passed for the medical inspection of schools, however, much general health work was done in the schools by the health authorities. The character of this work can best be shown by a quotation from the department's memorandum.

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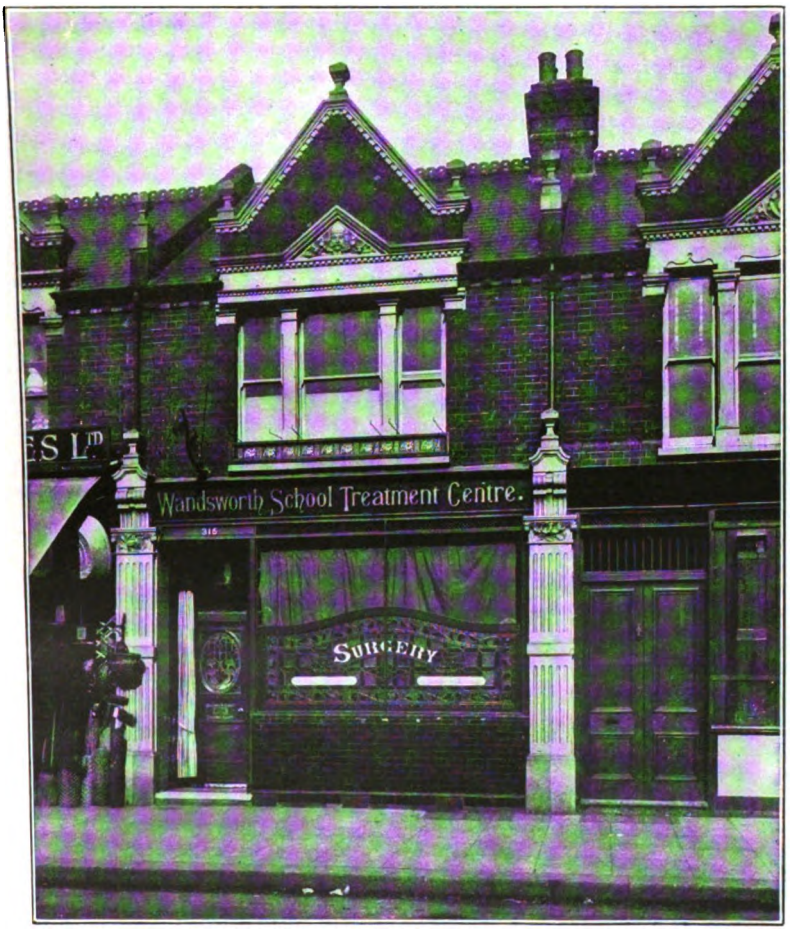

A LONDON SCHOOL CLINIC.

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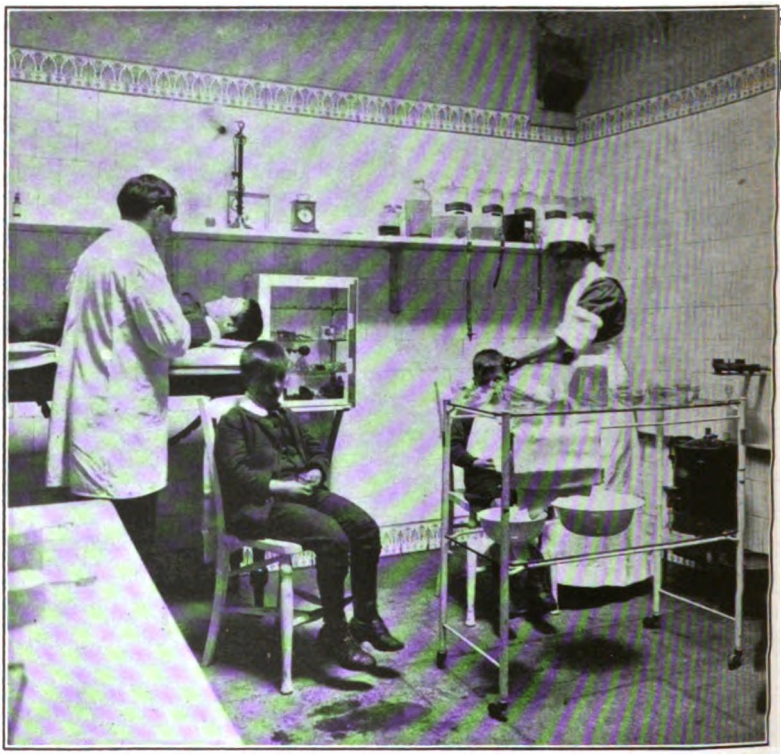

AT WORK IN A SCHOOL CLINIC, LONDON.

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At present all the schools in Scotland are subject to the supervision of the local authorities for public health and their medical officers of health. Every medical officer of health is required to make a report on the sanitary conditions of the schools within his public-health area. He is responsible for the medical supervision and medical inspection of schools and school children in reference to infectious diseases. Under the direction of the local government board for Scotland and in cooperation with the Scotch education department and their officers, the local authorities have maintained for some years a strict sanitary supervision over the schools and a personal medical supervision in all infectious outbreaks. More recently, many medical officers of health have made detailed surveys of the general sanitation, ventilation, lighting, drainage, and water supply of school buildings within their districts, as well as of all other conditions affecting directly or indirectly the health of the children. In the counties no less than in the towns the construction of such buildings must fulfill the sanitary by-laws affecting buildings in general. In a very large number of cases improvement, at the instance of the medical officers of health, has been made in drainage, water supplies, school closets, and sanitary matters generally.

The new powers under the present act (the Medical Inspection Act of 1908) are not intended to supersede but to supplement the large powers already exercised to such good effect by the public-health authorities. In fact, the medical inspection of school children now contemplated will serve rather as an amplification and natural development of previous legislation. This development is founded on the recognition of the close connection that exists between the physical and mental condition of the children and the whole process of education.

Attention has already been called to the fact that the medical work of the schools is only a part of the great system of physical welfare work. The foregoing paragraphs show the close relation existing between the medical work in the schools and the work of the public health officer. The recognition of this relation is one of the strong points in the British system. Both are parts of one greater system, and the officers of the two departments are required to work in harmony. The paragraphs quoted also show what a fixed place the work of general hygiene had in the schools even before there was any legislation requiring specific school medical inspection. The step was thus easy and natural from the care of children in the aggregate to the care of the individual child—from environmental care to personal care.

Before the act of 1907 became effective, there was some inspection in about 50 areas in England and in a few areas in Scotland. This was, of course, variable in kind and degree, but much of it was valuable, and it was not the intention of the board or of the Scotch education department in putting the new laws into effect to interfere with any good work already carried on. London began its work in 1891 and Bradford in 1893, while Dunfermline, Scotland, began in 1906; to-day these cities have especially progressive systems.[1]

[1] For a statement of the early work in London, see p. 46.

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Bradford is a woolen manufacturing center toward the ne England and has a population of about 300,000. This w second city in England to do anything in physical care of children. The work was begun in 1893, the year the Blind a Act was passed, and from that day to the present time its wo grown most successfully and satisfactorily.

Bradford not only made an early beginning but has taken ing part in extending the work beyond mere inspection fo tagious disease. This city was early in the field with an ex school clinic, where treatment is available for hundreds of c who would otherwise never get the benefit of such attention. ford was also a pioneer in the work of furnishing meals fo necessitous children and, at a very low rate, to all school chi As showing what this city was doing in this direction before th requiring medical inspection was passed, a report of the Bra education committee of recent date may be quoted. The act p ing for the provision of meals had been passed in 1906, but it make the provision of meals compulsory.

After careful consideration and visits to Leeds and Manchester, w certain amount of information was obtained, it was decided to establ central cooking depot at which all food will be prepared and cooke from which the cooked food will be distributed to centers in various pa the city. The children from schools in the neighborhood of the center attend at these centers at midday to partake of a meal, and for the pres has been arranged to open four such centers. The central depot will be e lished at Green Lane School, where, on account of the supply of steam hot water for the swimming bath, it can be done at a minimum of exp The numerous details involved in the arrangements for the fitting up of depot and the center have been the subject of most careful considerati have occupied considerable time, but the subcommittee hopes that the sy will be completed in the near future, and will insure that no necessitous in Bradford goes without at least one good meal a day, and further th meal is partaken of under conditions which will be of distinct educa value.

While Bradford and London are the most notable instances of beginning of medical inspection work in England before the pass of the general compulsory act, there is at least one city in Scotl that is worthy of mention in the same connection. That city is D fermline, the birthplace of Andrew Carnegie. Medical inspection school children is one of the many blessings that have come to t city through his beneficence. He placed a large sum of money trust to be used for such purposes as the trustees saw fit, for the w being of the people of the city. As a result, in 1906, three ye before medical inspection was compulsory in Scotland, Dunfermli began the work.

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II. ADMINISTRATION.

England and Wales.—The board of education is the chief administrative body for the public elementary schools. All plans proposed by a local authority must have the sanction of this board, which has the benefit of the experience of all cities and counties, and is in position to aid every local authority as well as to get the benefit of the experience of all. Such a system, while too cumbersome for a country like the United States, constitutes one of the strong features of England's work.

The board has a medical staff that has direct charge of the medical work of the board. This consists of a chief medical officer and 10 assistants—5 medical officers and 5 inspectors of physical training.[1] It is the duty of these officers to pass on the various plans for medical inspection, medical treatment, and school feeding that may be proposed by any local authority. They spend much time in visiting the different local areas and inspecting their work. While local authorities are not compelled to put their arrangements for school feeding or their work of physical training under the supervision of their own medical departments, and the great majority of them at present do not do so, the national board of education does administer its work in these departments through its medical staff, and has recommended this plan to the local authorities. In fact, it seems to be the tendency everywhere to put all departments of work that have for their object the amelioration of the child's physical condition and the making of a stronger physical manhood, under the school medical department.

A local education authority may be the council of a county, a county borough, a borough, or an urban district. The names are unimportant except as they distinguish the local government from the national. The plan of medical inspection for any one of these authorities originates with the authority and is subsequently submitted to the board of education for its approval. While legislation tending toward a permanent and well-defined national system of

[1] The personnel in 1914: Chief medical officer, Sir George Newman, M. D.; medical officers, A. Eicholz, M. D.; Miss J. M. Campbell, M. D.; Ralph H. Crowley, M. D.; Miss L. E. Wilson, M. D.; H. C. T. Langdon, M. B. His Majesty's inspectors of physical training are as follows: F. H. Grenfell, Miss A. E. E. Koetter, Miss R. D. Clarke, Miss N. M. Palmer, and C. B. Heald.

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medical inspection had its culmination in the act of 1907, this legislation itself did not establish medical inspection. That was worked out by the board of education under the authority conferred by the act. The board promptly met the responsibility placed on it by this act. Directions were given to local education authorities in a series of memoranda, the first one of which was issued in November, 1907. The act itself is brief, but it confers on the board the power of its execution. This first memorandum, officially known as Circular 576, gave the local authority the board's interpretation of the intent and scope of the act. In January of the next year another circular was issued, and in August of the same year the third was issued.

Sir George Newman was the first chief medical officer for the administration of the act for England and Wales, and a paragraph from his first annual report will best give the broad view the board took of the work:

> From the outset the board took the view that the medical inspection of school children was but a part of school hygiene, and that the whole subject of school hygiene was not a specialty or group of specialties existing by and of themselves, but was an integral and vital part of the wider question of the health and physical condition of the nation.

In Circular 576, already referred to, the board states at length what has already been done in school sanitation, medical inspection, etc., and then comes to the subject of "organization." It will be well to quote substantially sections 4, 5, 6, and 7 of this circular:

> 4. The duties thrown upon the board of education consist in advising local education authorities as to the manner in which they should carry out the provisions of the act, and in supervising the work they are called upon to undertake; in giving such directions as may be necessary regarding the frequency and method of inspection in particular areas; and in considering and sanctioning such arrangements for attending to the health and physical condition of the children as may be submitted to them by individual authorities. The board will also collate the records and reports made by the authorities and will present an annual report to Parliament.
>
> The duty of carrying out the actual inspection has necessarily been intrusted by Parliament to the local education authorities and not to the board. Each authority must, therefore, in due course appoint such medical officers or additional medical assistance as may be required for the purpose.
>
> 5. In view of the varied influences which affect the health of the children of the nation, it is important that the administration of this act should rest upon a broad basis of public health, and should use to the utmost extent the existing machinery of medical and sanitary administration.
>
> The board views the entire subject of school hygiene as an integral factor in the health of the nation. The application of this principle requires that the work of medical inspection should be carried out in intimate conjunction with the public health authorities and under the direct supervision of the medical officer of health.
>
> 6. The interests and activities of the school medical officer must extend over the whole environment of the child. School hygiene can not be divorced from

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home hygiene, and this in turn is intimately bound up with the hygienic conditions of the community.

7. After careful consideration both of the present conditions of local sanitation and of the developments most likely to serve the economical and efficient administration of this branch of the public work, the board is of the opinion that, * * * generally speaking, the work of inspection should be supervised by the medical officer of health of the authority which appoints the education committee; and when the work is more than he can undertake unaided, it should be intrusted to one or more medical officers working under his supervision.

The functions of the school medical officer may be exercised by a medical officer of health, a poor-law medical officer, a private practitioner, or a skilled specialist. In making appointments, preference should be given to medical men and women who—

(1) Have adequate training in State medicine or hold a diploma in public health.
(2) Have had some definite experience in school hygiene, and
(3) Have enjoyed special opportunities for the study of the diseases of children.

Inspection work is thus placed under the supervision of the health department, but as it is all under the supervision of the board of education in London, health control does not mean what it would in the United States, and does not carry with it the same objections. Again, the health and education departments are more closely related to each other than they are in this country, because they are both more closely related to the next higher authority.

The tendency is decidedly toward full-time officials, though many men are still employed for only a part of their time. This seems to be more generally true of dentists and specialists employed to give treatment. All the work of making the medical inspection act effective is not intended to be done by physicians. That the board realized this from the beginning is indicated in the following paragraph from Circular 576:

8. The board is convinced that work of medical inspection can not be properly accomplished by medical men without assistance. The teacher, the school nurse (where such exists), and the parents or guardians of the child must heartily cooperate with the school medical officer. * * * The board is satisfied that this work offers a great field of valuable service for the school nurse, and it recommends that, wherever practicable, education authorities should secure, especially in rural districts, the benefit and true economy which may be thus obtained. It is essential, however, that the teacher, school nurse, or health visitor assisting in the administration of this act should act strictly under the instruction and supervision of medical authority. Nor must the influence which the parent can exercise by example and precept be neglected. One of the objects of the new legislation is to stimulate a sense of duty in matters affecting health in the homes of the people, to enlist the best services and interest of the parents, and to educate their sense of responsibility for the personal hygiene of their children. The increased work undertaken by the State for the individual will mean that the parents have not to do less for themselves and their children, but more.

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Accordingly, while the approval of the board of education must be obtained before a system of medical inspection can be put into operation by a local education authority, the responsibility of the initiative is, of course, with the local authority, and so imperative is the duty in this particular that a neglect of it may result in the withholding of the authority's imperial grant for educational purposes. This possibility the board calls attention to in the third of its series of memoranda already referred to. The second of the series of memoranda is given mostly to a "schedule of medical inspection," and while it shows, as does the first memorandum, the relation of board to local authority, and local authority to board, it will be best to quote from it under the next head, "Scope of the Examination and Conditions Noted." The functions of the third agency in the execution of the medical inspection act, namely, the school medical officer, are described in the board's third memorandum, Circular 596, as follows:

> The school medical officer will doubtless furnish the local education authority with valuable advice as to improvements which can be made in the use of old school premises and in the design of new school premises for improving the health of the children educated in them. For instance, he will note and report to the authority cases in which the ventilation of schools is defective. He will observe and report instances of bad positions in sitting and unsuitable designs of desks or benches. As regards cases of defective eyesight, he will indicate such measures that will remedy or mitigate the defects. He will also be able to estimate the effectiveness of lessons on the subject of personal hygiene given in the schools, and he may be able to suggest improvements. He will observe the effect of holding classes in open air, and call attention to cases in which the adoption of this arrangement is desirable. The beneficial influence of the school medical officer will not be exhausted even when he has done everything included in this formidable catalogue. The mere fact that the services of a specially skilled officer and staff are devoted by the local education authority to the oversight of all matters affecting the health of the children in the public elementary schools gives to the whole question of school hygiene a dignity and importance which can not fail to affect the minds of the teachers, parents, and children alike. From this point of view the school medical officer must be not merely a functionary charged with specific duties, but a pervading influence making, in the long run, for better hygienic conditions in the school and in the home.

With the development of school clinics the duties of the school medical officer have materially increased, since this officer has general supervision over the clinics as well as over all other school medical work. These clinics are of two kinds. One is for a more thorough examination than can be made in the ordinary school building; the other is the treatment clinic. Children whose defects demand something more than a school clinic treatment must receive much attention in any thorough system of medical inspection. The blind, deaf, crippled, weakminded, and the incorrigible, all need special attention; and in the British system the chief school medical officer is the per-

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son responsible for the segregation and special treatment of such defectives. Special attention is given to the feeding of necessitous children, as well as other children who desire a warm and wholesome midday meal on the school premises and at minimum cost. The meal period is not simply for satisfying the child's hunger and for furnishing the body with nourishment, but if properly utilized it is one of the most valuable lesson periods in the day. The management of this work in some areas belongs to the school medical officer.

The duties of the assistant medical officers are the same in many respects as those of the chief officer, but most of their time is given to routine examination or treatment. Many dentists are employed, their work consisting of both inspection and treatment. Specialists are employed for the treatment of eye, ear, nose, throat, and skin diseases. These specialists usually give only a part of their time.

There is no more important factor in any system of medical inspection than the school nurse. In some instances she assists the physician, in other instances she does some of the inspecting herself. She fills a valuable place in the treatment clinic, where she applies the routine measures for many minor ailments. Her most important work probably is that of home visitation; she shows the necessity of following the medical inspector's advice, and also how to carry out the treatment for minor ailments.

There are 317 local education authorities in England and Wales and 241 of these had nurses in their school medical service during the year 1912. Exclusive of authorities who have made arrangements with local nursing associations for some work of this kind, and who have not made definite reports as to the number of nurses employed and time given, the figures as given in the report are as follows: Whole-time nurses, 397; part-time nurses, 345; total, 742.

The school attendance officer may be of very great service to the medical inspection department. Sir George Newman, chief medical officer to the board of education of England and Wales, in his report for 1912, published in 1913, says, on the duties of the attendance officer, that there are five ways in particular in which a school attendance officer may be of service to the school medical officer:

(1) By notifying the school medical officer of all cases of nonnotifiable infectious diseases which he meets with in ascertaining the causes of absence from school.

(2) By notifying all cases of blind, deaf, mentally or physically defective, or epileptic children, or children suffering from chorea, tuberculosis, paralysis, malnutrition, or neglect, etc.

(3) By notifying all cases of children absent from school on medical grounds.

(4) By notifying cases of children who are alleged to be permanently unfitted to attend school.

(5) By ascertaining, on visiting the home, to what extent the school medical officer's advice or directions in regard to treatment have been followed.

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As systems of medical inspection become more thoroughly organized there will necessarily become a close relation between the attendance officer and the medical department. The report from which the above is taken states that in a few places the school nurse has been appointed as an attendance officer and that the arrangement has been satisfactory.

Besides the administrative authorities and officers already enumerated there are numerous agencies that render valuable aid in following up the work begun by the school medical department.

In addition to their routine duties, many of the officers have made extensive investigations of certain phases of the child physical welfare movement. A list of such special investigations and of the local authorities under which they have been conducted is given in Appendix A.

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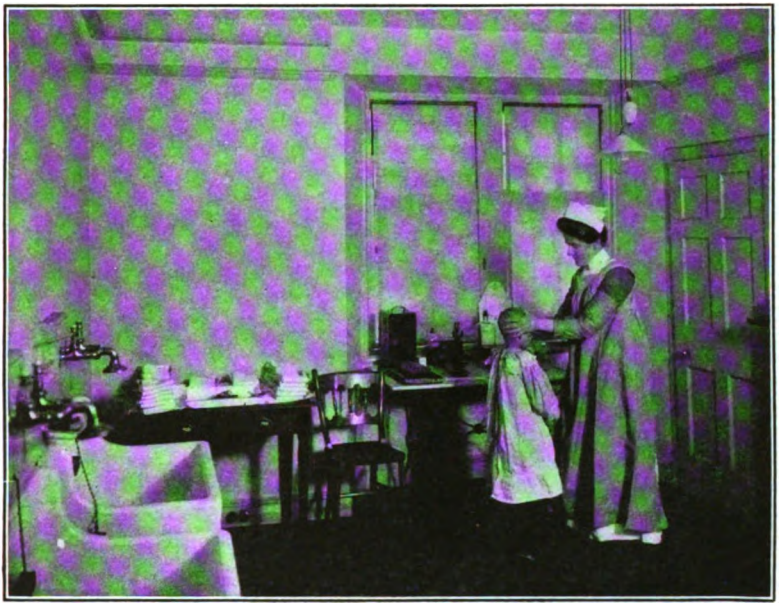
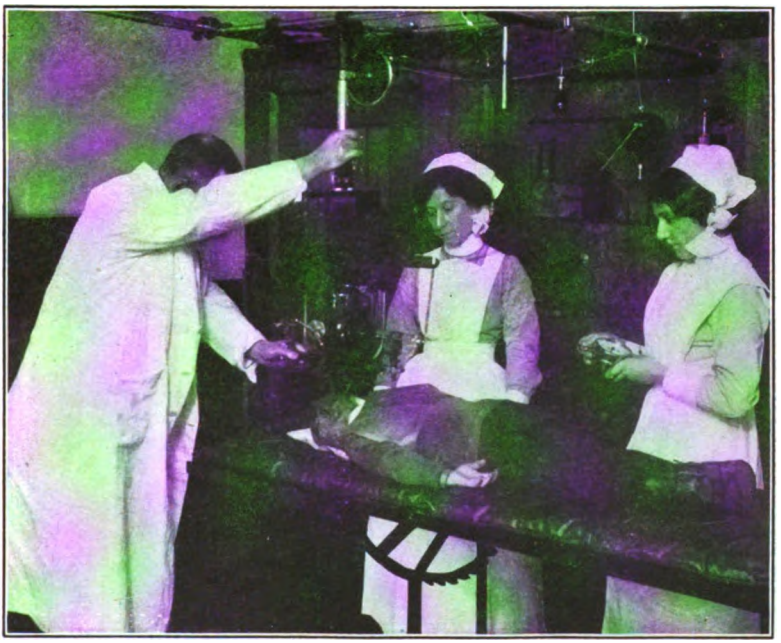


A. CLINIC FOR SKIN DISEASES.



B. X-RAY TREATMENT FOR RINGWORM.

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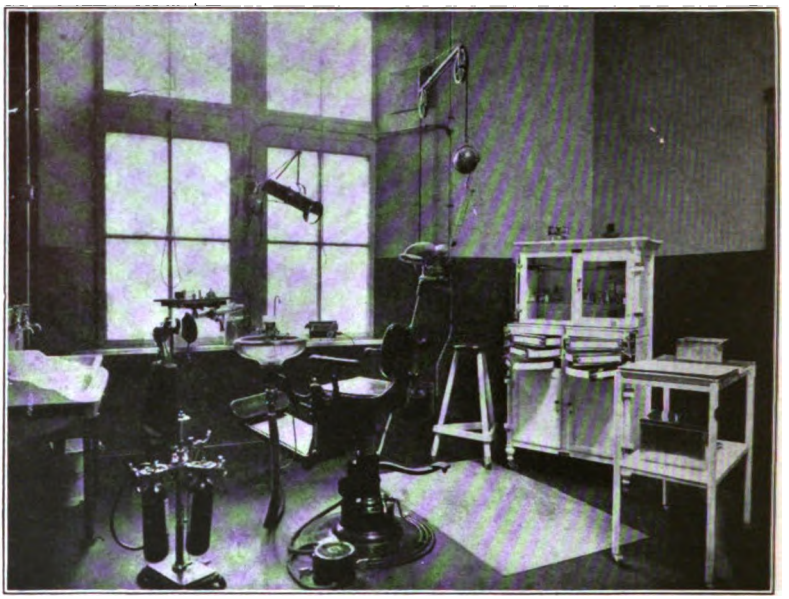

A. A DENTAL CLINIC.

B. ANOTHER CLINIC VIEW.

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III. MEDICAL EXAMINATION.

SCOPE.

The scope of the medical examination is outlined in the following statement from an annual report by Sir George Newman, chief medical officer to the board:

(1) The fundamental principle of the new act was the medical inspection and supervision of all children in the public elementary schools, with a view to securing the early detection of suspected defects, checking incipient maladies at their onset, and furnishing the facts which would guide education authorities in their relation to physical and mental development of children during school life. This underlying principle has meant, first, that all children should at some time in their school life come under medical inspection, whether they are physically healthy or unhealthy; and, secondly, that the medical inspection under which the children should pass should be not the maximum of clinical examination possible, but the minimum necessary to detect such physical and mental defects as would unfit the child to receive the education provided by the State.

The act laid down that it was the duty of each local education authority to provide for the medical inspection of children immediately before or at the time of, or as soon as possible after, their admission to a public elementary school and on such other occasions as the board of education directs. The examination of all children, of whatever age, on their first entrance to school was, therefore, a condition *sine qua non* of the scope of the work. To that entering group the board determined to add one other group, that is, the older children. Both entrants and leavers are terms therefore which cover somewhat indefinite age periods, the entrants being from 3 to 6 years of age and the leavers from 12 to 14 years of age.

In addition to the examination of entrants and leavers as required by the code for 1908–9, most authorities included in their examinations all children who, at the time of the medical examiner's visit, appeared to be in need of medical attention; the examiner also saw them from time to time at his subsequent visits. The official report on the work for the year states that no less than 250,000 children were thus added to the list of those to be examined.

In putting the board's schedule into operation the work of most of the authorities proved very satisfactory; some, however, submitted plans that went too much into detail, while others left their work too much to nurses and other nonmedical persons. These extremes were soon brought reasonably near the proper mean. The report declares:

The schedule is not, and never was, intended to be merely a means of collecting statistics. * * * The intention of Parliament was clearly that medical

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inspection should be of a practical character and have practical rather than academic results.

The board's view of the scope of the examination as it applies to the individual child may be seen from the following statement:

The board's schedule did not profess or intend to lay down either a full clinical study of the child or a scientifically complete medical examination. It indicated and comprised three objects, (*a*) to set out the methods which should be followed and the particulars which should be attended to for the purpose of determining the physical and mental fitness or otherwise of the individual child for school life; (*b*) to guide the authority in adapting the means of education to the peculiarities or abnormalities of the child, and (*c*) to prepare the way for measures for the amelioration of defects and disabilities in the child or its environment.

Medical inspection of secondary schools.—While the law applies only to public elementary schools, the work of supervision and inspection has been by no means limited to such schools. In many places the secondary school work has been given detailed attention by the medical department. In some instances the passing of a physical examination is a condition of entering a high school. In London the medical examination extends to the training colleges and trade schools. Dr. James Kerr, chief school physician for London, in his report for 1911 says that since 1908 medical inspection has been carried out in all the council's secondary schools, training colleges, trade and technical schools, and that it is just as important in these institutions as in the elementary schools; from the economical point of view, probably more important. He further states that each student is examined once a year, and that each institution is visited once in six weeks, so that the doctor can be consulted when students present any symptoms likely to affect their health or work. Every student has a medical record card, showing at a glance his condition; students are thus continuously under observation and are not permitted to continue at the institution if through illness or other causes they become unfit.

PHYSICAL TRAINING.

The relation of physical training to medical inspection receives much attention from education authorities in both England and Scotland; the board of education recommends that, as far as practicable, physical training be placed under the supervision of the school medical officer. This advice accords with the opinion expressed in the report of the royal commission on physical training in Scotland, as follows: "No systematic physical training ought to be practiced or enforced without a preliminary medical examination of the vital organs to insure that irreparable damage shall not result."

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DEFECTIVES.

The Defective and Epileptic Act of 1899 empowered local authorities to segregate, for purposes of better instruction, all children mentally or physically defective. The scope of the examination suggested for the physically defective was not adequate to those mentally defective, as in these cases a mental examination was also required. As a guide in this delicate and comparatively new field of investigation, a schedule was issued by the board of education (Appendix C). In their instructions the board also dwelt upon the importance of great caution in the endeavor to estimate the mental abilities of children. In this connection the official report says:

> In assessing the intelligence, however, which is the chief criterion for differentiation of the normal child from the feeble-minded, the mental tests designed by Binet and Simon are recommended. * * * It is not recommended that the Binet tests should be applied in the ordinary school as the means of primary selection of diagnosis. The teacher should select all retarded and backward children, and the school doctor should determine, by careful examination, which children need subsequent examination by the Binet tests. It should be added that these apparently simple tests should not be applied by one not fully understanding how to use them, and the conditions and appliances necessary for reliable results.
>
> It must not be forgotten, in the case of children who are backward, mentally defective, or deaf, that a successful response will depend largely upon the spirit of sympathy and encouragement displayed by the school doctor. It is a matter of first importance, therefore, that the medical officer should, at the earliest stage of the examination, get *en rapport* with the child. Should he fail to do this, he runs the risk of underestimating the mental powers of the child, with the serious result that he may commit the child to a course of training in a school and under conditions which may be wholly unsuitable.

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IV. REMEDIAL MEASURES.

It was seen early that inspection itself was only a small part of the work that was necessary, and that it would not benefit the child or the home from which the child comes merely to point out the presence of defects unless those defects could be corrected. It was equally clear that in many cases the defects could or would not be corrected merely because they had been pointed out. A more important part of the system was the provision of means on the part of the State to correct the defects discovered and to eliminate causes. The following paragraph from the report of the chief medical officer for 1909 shows that the purpose from the beginning was to get to the bottom of things and remove causes:

> The board has desired to see in the mind of the authorities applying for sanction a broad conception of the meaning of treatment. The extraction of a decayed tooth, the removal of adenoid growths in the throat, ointment for ringworm are, it is true, forms of treatment, but they do not fully cover the ground of the true conception of treatment, which should in the opinion of the board be viewed in a broad light as comprehending all influences which ameliorate or improve the physical condition of children during their school life. For instance, the modification of the teaching work of the school and its suitable adjustment to the physical capacity of the scholars is a form of treatment which in the end will bear much fruit. Thus the defective visual acuity of children, particularly young children, calls for early correction; but the rational treatment of some of these children will, as a rule, be an educational modification which avoids the necessity of spectacles, such modifications, for example, as will diminish the prevalence of the bad habit of working the eyes at near distance, or insure the adoption of suitable type of letterpress for the reader's eyes. Antecedent even to the discovery of such visual defects should come the removal of unsatisfactory conditions of school life, such as bad lighting, overpressure, ill ventilation, and overcrowding, which together or separately may prove to be a cause of fatigue and of injured eyesight. Obviously, such remedies are of greater importance to the eventual health of the community than the specific medical treatment of individuals.
>
> Physical exercises, again, if reasonably taught and rightly practiced, contribute largely to improved health and vigor, which is, after all, the best way of enabling the individual child to resist disease and become more immune to infection. Or, once more, it is idle for an education authority to attempt the treatment of, say, ringworm in individual children if no steps are taken to protect the school as a whole from infection and reinfection by the admission of children suffering from the complaint. Before sanctioning any substantial outlay on specific medical treatment, the board has, therefore, needed assurance that the authorities were really attempting to grapple with the problem of treatment in a broad and scientific way.

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Various acts of Parliament under which the medical department of the schools carry on their work have already been given. Briefly enumerated they are as follows: The Blind and Deaf Act of 1893, requiring the segregation and special care of the blind and deaf by local education authorities; the Defective and Epileptic Act of 1899, providing permissively for the special care of the mentally and physically defective children of the public elementary schools; the Provision of Meals Act of 1906, permissive in character; the Compulsory Medical Inspection Act of 1907, this merely compulsory with regard to inspection, but only permissive with regard to treatment; the Children Act of 1908, containing a provision whereby education authorities may secure facilities for cleansing verminous children.

The "Schedule of Medical Inspection" adopted by the board of education for England and Wales[1] was also adopted by the Scotch education department, and in reviewing the treatment of children or their segregation for treatment Scotland will therefore be considered with England and Wales.

Remedial measures will be considered under five heads: 1. Cleansing schemes; 2. School feeding; 3. Medical treatment; 4. Special schools; 5. Physical training.

CLEANSING SCHEMES.

These measures are not mutually exclusive, for special schools must have some means of cleansing the children, though they may not have what is usually meant by the term "cleansing scheme." Special schools will also have "school feeding," and there, above all places, it should be of the most highly specialized kind.

VERMIN.

By "cleansing schemes" ordinary bathing facilities are not meant, but the term has reference to means for freeing the children and their clothing of vermin—vermin of both head and body.

One of the most deplorable conditions revealed by the British system of medical inspection was the prevalence of vermin among school children. It was found to be worse among children in the cities than among children in the rural communities, and worse among girls than among boys.

The examinations in England, as well as in Scotland, are made after the parent has been notified that it is to be done, and has been invited to be present. Hence it may be surmised that the child at the time of the examination is in better than average condition.

[1] See Appendix, p. 58.

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Under the head of "Cleanliness of the Body," Sir George Newman, in his report to the English board of education for 1908, says that the reports coming to him from over the country show that from 5 to 10 per cent of the children are returned as "dirty," this too in spite of the fact that parents have been notified in advance of the examinations, and in most instances come to the examination with their children.

Under the subject of "Cleanliness of the Head," the English report above quoted goes on as follows:

The returns in the reports of the school medical officers under this heading show a very unsatisfactory condition of affairs. The lack of cleanliness is, as would be expected, much more marked in the case of girls, on account of their long hair, than in that of the boys. Though more prevalent in the schools of the poorer districts, this condition of verminous head is by no means confined to such schools, and though similarly more prevalent in the large county boroughs, the rural areas do not escape. Judging from the returns, it may be said in a general way, that of the children examined approximately one-half of the girls examined in urban areas, and one-quarter of those in rural areas, have unclean heads. Apart from the objectionable nature of the condition and the tendency it must inevitably have to lower the feeling of self-respect, the presence of a constant source of irritation reacts unfavorably upon the child, the harm done being accentuated in proportion as the child is highly strung or neurotic.

In Birmingham the school nurse makes regular routine examinations for vermin.

The school medical officer's report for the year 1912 contains the following comment on the condition:

Although there is evidence of a slight improvement in the percentage of those found to be clean, the figures betoken a lamentably low standard of personal cleanliness and lack of endeavor on the part of the parents. Many parents regard the presence of vermin as a normal concomitant of school life, while those who struggle to keep their children clean feel that they have a right to expect, while compelled to send their children to school, a reasonable protection from infection. The system of school bath installations adopted by most other European countries would do much to remove the stigma from our elementary schools, and to educate a new generation to a higher standard of cleanliness.

Sir George Newman in his report for the year 1911 says that the medical officers still find it necessary to give a large part of their time to uncleanliness among school children, and then adds:

Uncleanliness of person in school children constitutes a seriously adverse commentary on their training and education. It is impossible to consider any system of education as adequate which does not insure, as an early result, implanting in the child feelings of self-respect. In proportion as this fails to be effected in the home, does it become necessary for the training to be given in the school.

Much effort has been made to improve conditions. If ridding the child of the vermin with which he is affected were all, it would be an

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easy matter. But this is not all. The child goes into a home that is infected, and his condition is soon as bad as it was at first. Then the whole process of cleansing has to be gone over again. So the problem involves not simply the individual case, but the whole question of personal, school, and home hygiene. It is so important that it constitutes one of the chief duties of the school nurse. The school nurse inspects, treats, follows up the cases, and reinspects. The latest annual report of England and Wales says of the duties of the nurse on this point:

> Most authorities who have appointed school nurses to their service are employing them in greater or less degree in the work of detecting and following up verminous children.

It will be recalled that the statement was made in the section on "Administration" that 241 of the 317 local authorities had employed nurses and that others had the services of voluntary help along this line.

London County Council cleansing scheme.—The cleansing scheme adopted in London, which has served as a model to other authorities, consists of two parts, one designed to deal with verminous heads and the other with verminous bodies and clothing. There are 21 stations in use in the metropolis, and the great increase in the work in this direction is indicated by the fact that the number of children inspected by nurses rose from 251,592 in 1911 to 630,359 in 1912, an increase of 150 per cent.[1]

The latest report from Lancashire shows that the number of verminous boys leaving school (at 12 years of age) is less than 2 per cent of the whole number, while in 1909 it was nearly 5 per cent; that the number of girls at this age who were verminous was only 22 per cent of the whole number in 1912, while it was 38 per cent of the whole number examined in 1909. Many authorities show a similar change for the better, while only a few show no improvement. Where places show no improvment in the number of unclean children found, this may probably be explained by the fact that the inspection is more thorough than it had been before. Another favorable feature is the fact that, though the number infected may not be materially decreased, the virulence of the infection is not so great.

Aberdeen, Scotland, probably has the most efficient system of cleansing in the whole country and the most perfect and complete cooperation between the school medical service and the general health work. The work in this city shows fully the necessity of going beyond the individual child in the case of a verminous condition, and cleansing his environment as well. This cooperative system is

[1] For details of this work see Appendix D, p. 61.

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described by Dr. Ross, the school medical officer for the city, in his report for 1911, which is here quoted:

The futility of trying to get rid of itch and vermin in the schools by dealing only with the children suffering with these complaints early became evident. Case after case that had been dealt with turned up with wearying regularity; so that it was soon apparent that unless the whole family and the home were dealt with no permanent improvement could be expected.

After considerable negotiation between the school board and the sanitary authority, an agreement was entered into to deal with all such homes and families. The expense of the scheme of cleansing, which was estimated to cost 800 pounds per annum, was to be borne equally by the board and the local authority.

The heads of the agreement between the two bodies are: That the school board undertakes the inspection of verminous children and their households, and reports to the public health department of the town council as to what is required for their cleansing and disinfection. The public health authority of the town council provides the necessary accommodation, the staff, conveyances, and apparatus for cleansing. An inspector was appointed to act under the instruction of the medical officer of the board, and the work was begun on March 13, 1911.

When a child is found suffering from vermin or itch, it is excluded from school, along with all children of the family. The house is visited by the inspector, who reports to the medical officer on the condition of the family, as to numbers, means, accommodation, bed and body clothing, etc. Disinfectant is supplied with instructions how it is to be used, or where, on account of lack of accommodation, or of bed or body clothing, it is considered necessary, the whole family is moved to the cleansing station to be treated. Where children are found verminous the second time, the family is moved invariably to the cleansing station.

When a family is taken to the cleansing station for the purpose of disinfection, every stitch of bed and body clothing is removed from the house and is disinfected. The house itself is disinfected and cleansed, fresh chaff is supplied for the beds, and, where necessary, the bed and body clothes are washed. The family thus get a fresh start in life. In carrying out this work, every consideration is shown for the feelings of those dealt with. Adult members go to the cleansing station at night and leave in the morning in time to get to work.

Although considerable dubiety was expressed at the inauguration of the scheme as to getting adults to go to the cleansing station, and of homes and families remaining clean after treatment, doubts have been agreeably expelled. The scheme has worked smoothly, largely owing to the tact of those dealing with the infected families and the excellent provision made for their comfort during the cleansing process. In only two cases has it been necessary to resort to legal compulsion.

While it is too soon to come to a conclusion about the success or failure of this scheme, reexamination of the children attending school has given so favorable results that there is ground for believing that a successful method of dealing with this reproach of our city has been found.

Attention has been called all through this bulletin to the fact that this work in Great Britain is a broad one, and that its greatest success depends on a complete cooperation between all the forces working to this end. It is felt that school hygiene can not be divorced

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from home hygiene, nor can home hygiene be divorced from industrial hygiene.

The education (Scotland) act of 1908 provides that when a child is filthy or verminous it may be lawful for the school board to prosecute the parent and take charge of the child and cleanse him and restore him to a healthy condition. Under section 122 of the Children Act (which applies alike to England and Wales and to Scotland) the school board may direct their medical officer to examine the children in school, and if the person or clothing of any child is found to be infected with vermin they may notify the parents to have the child cleansed, and if the parents fail to do this the board may take all the necessary measures to have it done, and when called on by the school board to do so the health authority must place at the disposal of the school board any places or equipment they may possess for the purpose of cleansing persons or clothing. With such resources at their command it is possible for the boards of education or education committees to do much toward cleansing the children and thereby raise the physical, moral, and social standard of the nation.

In addition to school cleansing as a remedial measure in the strict sense of the word, some attention may be given to school bathing, separate and apart from its use as a treatment measure. The shower bath has been introduced in the schools of many education authorities because of its value in teaching the child the habits of personal cleanliness. The child naturally feels better when he is conscious of the fact that he is clean; he feels more like doing the daily work of the schoolroom, and he is more likely to be in a condition to ward off disease. The board of education (England) recognizes the value of this form of bath in computing grants from the national treasury based on attendance. The board has also expressed a willingness to consider the installation of shower baths wherever such may seem to be needed, whether for a new school building, for an old school building, or for some independent building accessible to school children. In numerous institutions there are swimming baths as well as shower baths. While there are baths at the present time in only 20 local areas, with the impetus that the movement has, and with the value that it is conceded to have in so many ways, it is considered to be only a matter of a few years before every local authority in Great Britain will have established some form of bathing in the schools.

SCHOOL FEEDING.

The next remedial measure to be considered is that of school feeding. Strictly speaking, school feeding is not a branch of the medical inspection department, and yet it would be impossible to give medical inspection broad scope and leave out this feature. The board of

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education administers this department through its medical staff. The separation comes in the local education authority; the local authority is not required to put school feeding under its medical department, though the tendency is to closely relate the two. The fact that the "Provision of Meals" Act was passed and put into operation before the act providing for medical inspection was passed probably explains the separation of the two services.

The investigations that led to the passage of the Provision of Meals Act were not primarily directed to school feeding. The necessity of the provision was emphasized, however, as already noted, in the report of the royal commission on physical training in Scotland and also in that of the interdepartmental committee on physical deterioration. The committee appointed by the president of the board of education in 1905 was directed, as one part of its duties, "to inquire into the existing arrangements of voluntary agencies for the provision of meals to school children, and to report as to the possibility of its better organization."

In his first annual report to the board of education, the chief medical officer comments on the reports of these three committees as follows:

> When the terms of this report are considered, together with the reports on physical training in Scotland and physical deterioration, it is abundantly clear that an overwhelming mass of evidence had been collected which united to present a most convincing case—in the first place of the physical needs of necessitous and underfed children, and the second for a general system of medical inspection and supervision, with at least the possibility of acting upon the results of inspection by a scheme of treatment.

The result of these investigations and recommendations was the passage of the Education (Provision of Meals) Act. This act gave the local authority the right to furnish meals to necessitous children or others, and to aid committees who were doing such a work by furnishing them with equipment and staff. The local authority, however, must have representation on the committee. Even then it could not use public funds as long as private funds were available for the purpose. But if no private funds were available from any source, the authority might spend an amount not to exceed one halfpenny on the pound on such a plan as had been approved by the board of education.

Although the board of education has not the power to require that the feeding of children be made a part of the work of the medical department of the local authority, it is fully convinced that such an arrangement would be the best. As evidence of the board's view of this matter, the latest report of the chief medical officer has the following to say:

> In the board's view no scheme can be regarded as wholly satisfactory unless the school medical officer—

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(*a*) Has the right to nominate for school feeding any children found at the routine medical inspection or on special examination to be suffering from malnutrition due to insufficiency or unsuitability of food;

(*b*) Is consulted as to the dietary provided;

(*c*) Has the right and duty of inspecting the actual arrangements made in regard to the preparation, distribution, and service of the meals;

(*d*) Is consulted in all cases of doubt as to the necessity for retaining a child on the feeding list owing to its physical condition.

There are two tests used for the selection of the children who are to receive the benefits of the Provision of Meals Act. They are known as the poverty test and the physical test. In using the physical test the child's state of nutrition is considered without regard to the probability or improbability of his having sufficient food. The poverty test is one in which the child's present financial condition is considered. Any condition that renders the child unable, for the time being, to secure proper food is sufficient justification for placing his name on the feeding list. The majority of authorities use the poverty test. The following statement taken from the report (1912) of the chief medical officer of the board of education will be of interest:

Inquiries are made as to the total weekly income of the family. House rent is deducted from this total and the remainder is divided by the number of persons in the family. This gives the net income per week per head. If the income is below a given amount, meals are provided; if above it they are withheld.

It is obvious that the only sound criterion of selection is the physical condition of the child. It is true that whether the selection be made on a physical or a poverty basis, the majority of the children will probably be the same in both cases. On the other hand it must be remembered that in a considerable number of households which are fairly well-to-do there will be found children who, owing to the unsuitable character of the food provided or to neglect, are suffering from malnutrition and are therefore fit subjects for admission to the meals. Where selection is on a poverty basis children of this type are passed over. Another objection to the adoption of the poverty test lies in the fact that the physical well-being of the child is often sacrificed to the natural reluctance of the parent to take upon himself the social stigma involved in the acceptance of any form of relief. That the poverty test has been so generally adopted is doubtless due partly to the ease and precision with which a purely mechanical test of this kind can be applied and partly to financial considerations—the idea apparently being prevalent that only by this method can expenditure on the provision of meals be kept within reasonable bounds.

The selection of the child who is to receive meals is not the only problem confronting the authorities. The selection of the menu so that it will contain the greatest food value for a minimum cost and at the same time be palatable and appetizing is a problem of equal difficulty. The variety and time of serving are questions to be considered. In the main the food is prepared in large cooking centers from which it is distributed to the several individual schools or feeding centers. This is not the invariable rule, however. The special

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schools of the various kinds have their own cooking equipment and do their own cooking on the premises. The diet and the time of service also vary more in the special schools; particularly is this true for conditions such as anemia and tuberculosis.

Below is given a list of menus furnished to the necessitous children of London by the Alexandra Trust. They are furnished under contract, and cost about 4 cents apiece.[1] This center has furnished as many as 30,000 meals a day. The meals are sent out in heat-retaining vessels to 170 different feeding centers, at which places the children gather to partake of the meal.

1. Dinner menus for winter:
   1. Haricot bean soup, bread, treacle, pudding.
   2. Fish and potato pie, bread, baked raisin pudding.
   3. Pea soup, bread baked in dripping, fruit pudding.
   4. Stewed beef or mutton, suet roll, steamed potatoes, bread.
   5. Beef stewed with peas, suet roll, potatoes, bread.
   6. Mutton stewed with haricot beans, steamed.
   7. Meat and potato pie, bread.
   8. Meat pudding, potatoes, bread.
   9. Toad-in-the-hole, potatoes, bread.
   10. Rice pudding, two slices of currant or sultana bread and butter.
2. Dinner menus for summer:[2]
   11. Rice pudding, two slices of bread and butter.
   12. Toad-in-the-hole, potatoes, bread.
   13. Meat pies, potatoes, bread.
   14. Meat pudding, potatoes, bread.
   15. Cold meat pie, fruit roll.
   16. Meat sandwich, piece of cake.
   17. (For infants.) Hot milk and bread, fruit roll.

The next seven are for infants, and Nos. 18, 19, and 20 are the same as Nos. 4, 5, and 6 above:

   21. Rice, tapioca, macaroni, or barley pudding, with two slices of sultana bread and butter.
   22. Stew—very fine mince.
   23. Baked custard, with bread and butter.
   24. Savory custard, with bread and butter.

The next three are breakfast menus:

   25. Cocoa, porridge, and two slices of bread and butter.
   26. Cocoa, three slices bread and dripping.
   27. Hot milk and bread, two slices of bread and jam or marmalade.

Special diet is provided for children in the tuberculosis schools or recovery schools of various types.

Meals are furnished to many children without cost to their parents, but the parent is always expected to bear the expense when he can do so, and often the meals are furnished and the cost recovered

[1] Based on prices prevailing before the war.

[2] The summer dinner menus are ordinarily supplied to the dining centers through June, July, August, and September, and the winter menus during the other months. If desired, however, the winter menus will be supplied at any time during the year.

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later from the parent by a civil suit. Again, the parent may pay only a part of the cost of the meals—a half or less. The effort is carefully made to avoid pauperizing the parent on the one hand and imposing upon the State on the other.

The last point to be mentioned is the educational value of the meal. Efforts are made to have the children orderly, show respect for each other, and appreciation for the free gift of the food; they should also be taught to masticate their food thoroughly. For this purpose plenty of time must be given for the meal.

From time to time inquiries are made as to the improvement of the conduct and manners of the children who receive the free meals. As the result of such an inquiry in 1912 on the part of the Bradford education committee, 43 teachers reported considerable improvement, 61 distinct improvement, and 29 slight improvement; 83 reported no visible difference. The following quotations from the reports of school medical officers are suggestive in this relation:

As the meal itself is attractive, it is a matter for regret that the educational advantages of good table manners are not insisted upon.

The behavior of the children was far from orderly, and the educational value of the meal practically nil.

A few older children acted as monitresses, but there was nothing very satisfactory about the way in which the dinner was served. * * * The walls of the room were extremely dirty.

The arrangements are extremely primitive, the meals being served on old school desks covered with white oil baize much worn. There is complete absence of amenities, such as grace, punctuality, simultaneous assembly, attention to manners. * * * The selection and management is on the pauper basis entirely. Neither the school medical officers nor the teachers are associated with the work.

The following quotations give another view:

The ladies of the helpers' committee have again undertaken the duties of being present at the meals, and they report that the discipline and behavior of the children are most satisfactory.

The meals are supervised by the teachers. * * * The children all sit down together, and grace is said.

The head teachers are also asked to impress upon the scholars that they must attend the canteens in a clean condition, and the district committees are authorized to refuse breakfast to any child coming in a dirty condition after suitable warning.

The room is clean, bright, and well lighted, and is fitted with tables covered with white oilcloth.

One of the chief educational values of a meal, as distinct from the distribution of food, is the opportunty of teaching the children to regard themselves as members of an organized community with social obligations to each other. It must not be forgotten that in many of the poorest homes meals as such do not exist, and that food lies on the table all through the day, to be snatched up and eaten whenever whim or hunger prompts. The introduction of tables and seats, of plates, forks, and spoons, and the orderly arrangement of beginning and ending the meal with a grace can not fail to have a marked effect in the general and moral value of the meal, while at the same time the longer period allowed for sitting and talking favors the digestion of the food.

It is the consensus of opinion among the teachers that the administration of school meals is having a decidedly beneficial effect on

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the physical, social, and intellectual life of the child. And as the relationship between the administration of meals and the work of the teachers becomes closer and more general, and as the school medical department becomes more closely connected with the work of the canteen committee, the good results will be incalculable.

SPECIAL SCHOOLS.

If a child's defects can not be overcome, it is considered best to place him in a special school that will suit his case. The classification of these schools varies under different authorities, and naturally in the large centers of population classification and segregation can be carried much further than in sparsely settled rural communities. It is often the case that school authorities having few defective children to provide for arrange to send them to special schools in other areas.

For the purposes of this bulletin the following classification will serve:

1. Schools for the blind.
2. Schools for the semiblind.
3. Schools for the deaf.
4. Schools for the semideaf.
5. Schools for epileptics.
6. Schools for the physically or mentally defective.
7. Schools for stammerers.
8. Schools for children with chronic contagious skin diseases.
9. Open-air schools.
10. Industrial schools.

There are many combinations between these classes of schools as well as numerous subdivisions. This is necessarily the case, since much of the work now included in the department of medical inspection had its legal beginning long before medical inspection was required by law.

Schools for the blind.—The first day school for the blind in England was opened in 1879 in London, and like all schools of the kind established before 1893, when the Blind and Deaf Act went into effect, was conducted without Government aid. The act was compulsory for the period of elementary instruction. By the provision of the education act of 1902 local authorities were empowered to establish higher education for the blind and deaf, and several authorities have availed themselves of the privilege.

The school for the blind in Manchester, located on Shakespeare Street, accommodates about 40 children ranging in age from very young children up to 16 years. The building which it occupies is an old residence that might not be suitable for a school for any other class of children. It is noticeable that many of the special schools are in old buildings which were not constructed for school purposes. This may be explained by the fact that the special schools have mul-

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tiplied faster than provision could be made for them; furthermore, large buildings are not needed for most of the day special schools. In the Manchester school besides the literary instruction by the ordinary Braille system, there is a great deal of manual work. Music also receives attention.

Schools for semiblind.—There is a school for the semiblind in Harvist Road, London. Some of the children in this school might do work in the ordinary elementary school, but their eyesight would be endangered thereby; most of the children, however, could not carry on such work. The head teacher furnished the following description of this school:

Equipment.—1. Blackboards ruled in 4-inch lines on all available wall space which can be easily reached by the child.

2. Specially designed "Bishop Harman desks for myopic children."

3. Roller blackboards made on the principle of a roller towel from American cloth treated with special preparation to make it dull and nonreflective. Size: 20 feet by 4 feet 6 inches (which gives a writing space 20 feet by 4 feet 6 inches), easily adaptable to the height of any child.

4. Four sheets of American cloth 27 feet by 24 inches fastened to a lath to be used on the desk.

5. Exercise books made of black paper as per specimen.

6. White Conte a Paris crayons and pencils to use in connection with No. 5.

7. Dustless Hygiea white chalk for blackboards.

8. Black cardboard mounting boards for reading lessons, 30 by 32 inches.

9. Plain block-type printing set with interlocking pins. Size, 1 inch by 2 inches.

10. One shop printing set.

11. Black indorsing ink for use with printing set.

12. White cartridge paper and cardboard for printing on. Sizes, 15 by 11 feet and 27 by 40 inches.

13. Black linoleum 10 by 6 feet framed for map drawing.

14. Surveyor's measuring tapes which are very plainly and clearly marked.

Curriculum.—The following subjects are taught orally at a near-by ordinary elementary school: Singing, physical exercise, Scripture, nature study, history, geography, recitation. The last three are supplemented by suitable extracts written on blackboards or printed in large type previously referred to. The following are taught within the Harvist Road building: Arithmetic, reading, writing, composition, history, geography, recitation, speech training, manual occupation.

Lessons are correlated as far as possible. For example, a child listens to an oral lesson in history or geography at Pakeman Street (the near-by grammar school), and then comes here and reproduces what he has been taught by means of large sketch maps or composition according to text of lesson.

Scripture.—At the recent Scripture examination, those children not examined orally, for example, Standard IV and upward, were tested by exactly the same questions as the normal children. Copies of these were obtained from the headmaster and some printed in large type, others written on the blackboard. Children answered on blackboard, teacher marking each question as it was finished. Results reflected great credit on teaching at Pakeman Street.

It is on this correlation of the work that much of the success of this type of school depends.

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Reading.—Two or three of the most pertinent paragraphs in each reading lesson, extracts and quotations from the poets and standard authors, are printed in suitable type to form actual reading matter. The remainder of the lesson, the story of the poem, or the text of the extract, is read or related by the teacher to point and finish the whole.

Speech training.—Attention is called to the different elements which form speech—for example, vowels and consonants and to the position of the organs producing.

As a rule the girls enunciate more carefully and imitate more perfectly than the boys. Each sound has some story connected with it.

The schools for the blind are not included under "remedial measures" in the sense that they correct the defect with which the child is affected. Hence, schools of this kind may properly be considered in the discussion of a system of medical inspection. But in many cases, for instance that of a child with high myopia, improvement may take place if the proper attention is given early.

Schools for the deaf.—These schools are very much like the foregoing, so far as their relation to medical inspection is concerned. They are "remedial schools" only in part. The effort is made to remove any abnormal conditions of nose or throat that may be aggravating the ear defect. But the most important connection of the medical inspection department with this line of work is the detection of defects of hearing before they have advanced beyond remedy. In some systems teachers make periodic routine examinations of the hearing of children in their classes. If the medical examiner finds conditions that can be remedied by medical or surgical measures, he secures the remedies; but if the child's hearing is too low for him to profit by the ordinary methods, he is recommended for a school for the deaf or semideaf, according to the degree of his deafness.

Schools of this kind are to be found in Birmingham, Glasgow, Bradford, and London. In London one of the schools has a class for the semideaf. In this school much care is taken to preserve and improve what hearing yet remains. Special instruction for the deaf is compulsory throughout the whole country, and attendance upon the instruction is compulsory.

Schools for epileptics.—The law governing the schools for the blind and the deaf, passed in 1893, was compulsory. The law governing the work of epileptics and children mentally and physically defective, passed in 1899, is permissive. The defect of epilepsy in the meaning of the act was to be determined by a physician selected for the purpose by the education department. This was the first instance in England in which statutory powers in connection with school administration were given to a medical officer.

That part of the act providing for the segregation and special education of epileptics has not been very generally adopted by local authorities. There are perhaps several reasons for this failure. The act provides that the child must be suffering to such a degree as to

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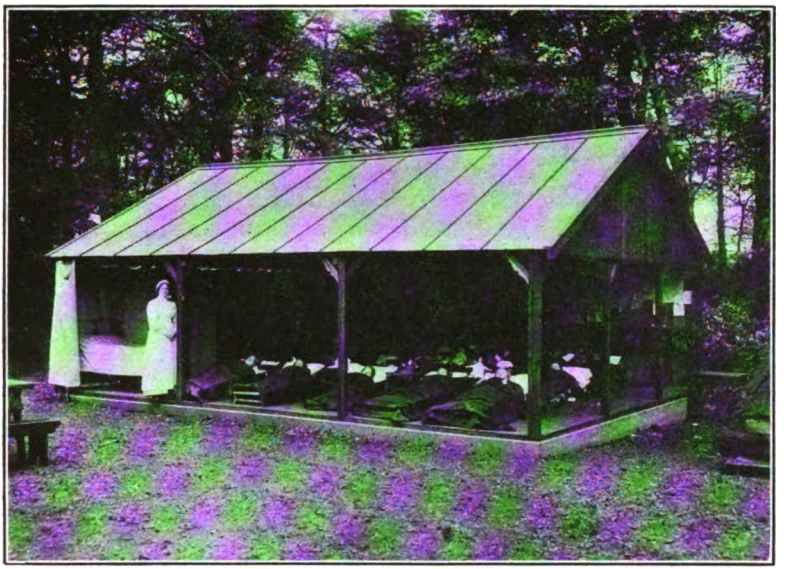
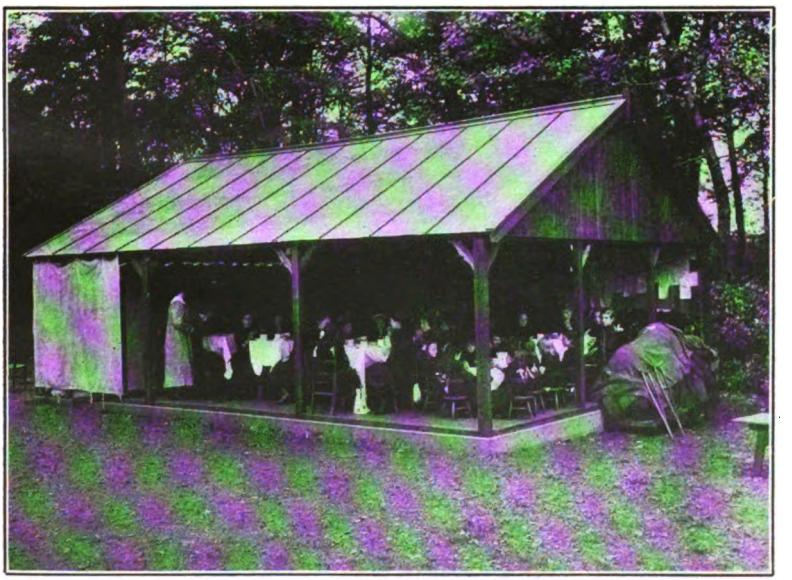


A. OPEN-AIR REST ROOM—THE REST PERIOD.



B. OPEN-AIR REST ROOM FOR TUBERCULAR CHILDREN.

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A. COOKING CENTER, EDINBURGH.

B. PREPARING TO SEND OUT HOT FOOD FROM THE COOKING CENTER, EDINBURGH.

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render him unfit to attend the ordinary elementary school, and yet his condition must not be so bad as to render him unfit to be educated. Again the number of epileptic children in a local area is not always sufficient to justify the establishment of a special school, and the difficulty of making satisfactory arrangements with another authority is not in every case easily overcome. According to the report of the board of education for 1912, there were only six residential schools for epileptics in England and Wales at that time. These schools had accommodation for about 500 children, but with the exception of one established by the Manchester authority, they were all under voluntary management. A description of the Manchester school follows:

The Soss Moss residential council school for epileptic children, under the Manchester education authority, was opened in November, 1910. Children had for some years previously been sent to the David Lewis Epileptic Colony adjoining, but the number of children dealt with by the education authority becoming so large, the authority decided to open a school of their own. The school is situated about 3 miles from Alderly Edge and about 15 miles from Manchester, and is placed on a site of 23 acres. The children are accommodated in four "homes," two for boys and two for girls, each accommodating 25 children. The school forms a separate building. A matron is placed in charge of each of the homes, and the head master of the school acts as superintendent of the whole. The cost of buildings and furnishing was approximately $900 per head of accommodation. A visit is paid to the school each week by the school medical officer to the Manchester education authority, Dr. Brown Ritchie, who is responsible for the admission and discharge of the children and the general administration of the home. Dr. McIlraith, a practitioner in the neighborhood, visits at least twice weekly, and is responsible for the general health of the children.

* * * * * * *

Lingfield is the only one of the six epileptic colonies where a medical man is in residence. Dr. Hume Griffith is superintendent of the whole colony, and on this account there can be no doubt that the children receive more detailed medical care. A dentist attends once weekly. At Chalfont a dentist attends once a month. At Much Hadham a dentist attends quarterly and an oculist twice a year. At Starnthwaite a dentist visits three times a year; an oculist attends at intervals. An oculist, but no dental surgeon, has been appointed at Maghull. At Soss Moss both a dental surgeon and an oculist are on the staff.

Much attention has been given to the cause, the time of onset, the frequency of occurrence, and the treatment of epilepsy. Some investigators have reported as many as one case in every 400 children examined; others report one in every 1,400. The institutional or home treatment has been found to be the best. Attention must also be given to classification according to age, sex, and grade of epilepsy. As few of the children are able to leave the institution at the age of 16, the after care must receive attention. The life must be as simple as it is possible to make it. Interest must be

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kept up without wearying the brain. Light manual work forms an important part of the daily routine. Gardening is considered one of the best lines of work, as it gives interest, outdoor life, and mild exercise all at the same time. So far as diet is concerned, the food should be well cooked, easily digestible, and there should be very little meat eaten. As so many cases going from the schools are lost sight of, the experience of the authorities so far does not admit of a very definite prognosis. But on the whole it may be said that the school life is more palliative than curative.

Schools for physically defective children.—The segregation and care of this class of children is provided for in the same act as that which provides for the care of epileptics. Its provisions have been more generally adopted, however, as applied to these children than they have as applied to epileptics. For the code year ending July 31, 1912, there were 67 schools in England for physically defective children. They had a capacity of 5,260 and an attendance of 4,674. These schools have a twofold object: They relieve the defects with which the children are suffering and they afford instruction most suitable to the child's probable future. The effort is made to enable the child to be self-sustaining in spite of his defects. The same classification is not observed in all cities. Even in the same school the work may be varied greatly to suit the individual needs of the children. If a child can do a certain kind of manual work better than anything else, he is allowed to do that so far as it is not incompatible with a reasonable amount of organization.

One good feature in connection with this class of schools in Liverpool is the interest taken in the work by the Invalid Children's Association. When the school medical officers find children who are suffering with certain forms of tuberculosis or joint or orthopedic defects that require special surgical apparatus, the cases are reported to the officers of this association, who usually succeed in securing the necessary appliances. When the children are in need of a convalescent home, the same course is pursued and with the same gratifying results. In the two schools for physically defective children in Birmingham there were 229 enrolled in 1912. The list of conditions and diseases with which they were afflicted follows:

Tuberculosis—		Various deformities (including rickets)	38
Spine	35	Spinal scoliosis	11
Hip	38	Congenital dislocation of hips	7
Knee	15	Heart disease	8
Various	7	Various	4
Infantile paralysis	44		
Spastic paralysis	12	Total	229
Pseudohypertrophic paralysis	1		
Various muscular dystrophies	4		

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Dr. Auden, the chief school medical officer, states in his report from which these figures are taken, that the children are all suffering from dental caries in a serious form, which he believes is very detrimental to their health and may even be the one adverse circumstance that turns the balance against recovery. It is his opinion that these day schools for this class of children are doing much good, but that much more is yet to be done. His idea is that this work, to be most successful, must be carried on in a residential institution having under one roof and under one management educational, clinical, and trade training curricula. The children in these schools are conveyed to and from their schools in vehicles provided by the city. The same is true in other cities. In Edinburgh an arrangement is made with the car company for carrying large numbers of the children to the Duncan Street School.

Many of the schools for physically defective children also have the mentally defective children in the same building. This enables the authorities to economize in matters of administration and conveying children to their schools. The Duncan Street School in Edinburgh, previously mentioned, is one of this type, as are the schools for defective children in Liverpool and in Birmingham. The Edinburgh school provides for the physically defective, the mentally defective, and delicate children, and is somewhat on the open-air plan. The seven rooms of the building all face toward the south, and the southern wall can be entirely removed. A large sheltered garden, with space for sand heaps, and other outdoor attractions make this department of the work both interesting and profitable for the children.

A school at Manchester for crippled children is worthy of special note. It is situated 4 miles out of the city, on a site comprising 16 acres, and while not an open-air school in the ordinary sense of the word, makes it possible for much of the life of the children to be spent out of doors. It is noticeable that the children are nearly all very young and the cases practically all surgical. The teaching, while carried on regularly and systematically, appears to be entirely secondary to the work of relieving the physical defects. It may be said that it is more of an institution for the correction of defects than for teaching, although the operative part of the work is not done at this place, but at the hospitals of the city. The visiting surgeon's annual report for the year 1912 is given in the Appendix (p. 63).

In New King's Road, London, is located a special school for physically defective girls that represents the other extreme from the school described in Manchester. The Manchester school has as its chief object the relief of physical defects, with the teaching not much more than a pastime—a mere means of entertaining the little folks while

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undergoing the unpleasant ordeals of treatment. The work at the New King's Road school has no such object. Its purpose is not to cure or to try to cure the physical defects. The school is for girls between the ages of 12 and 16 whose physical condition is such as to preclude the possibility of their following the ordinary vocations in life. It is a school for training in art work, fancy embroidery, and dressmaking. From time to time the dressmakers of the fashionable west end of London visit the school to comment on the work and examine the girls engaged in it. When the girls leave school they receive about $2 a week to begin with.

Schools for mentally defective children.—Mentally subnormal children present a perplexing problem. The first part of the problem is the selection of the cases. After the classification into normal and subnormal, there are children in the normal who are backward and retarded and must receive special attention in order to finish the average course. Of the subnormal there are two classes to be considered, the educable and the ineducable.

The Defective and Epileptic Act, 1899, has been referred to before as the one under which the education of the mentally defective children is carried on. In 1913 Parliament passed an act known as the Mental Deficiency Act. Its purpose is to provide for those children who are ineducable, and also those who are in a measure educable, but who must be looked after by the State, even after they have received what education they will take. Before this act was passed, whatever responsibility the local authority took upon itself in this matter of caring for mentally defective children was voluntary. While the duties of educating the children remain the same, the new law makes compulsory the ascertainment of all mentally defective children in the respective areas and the ascertainment and notification of children considered ineducable. The treatment of this question is of such vital importance to the nation and the passage of the Mental Deficiency Act was such a long step forward, that it is desirable to quote from the act itself:

SECTION 2.—(2) Notice shall, subject to the regulations made by the board of education, to be laid before Parliament as hereinafter provided, be given by the local education authority to the local authority under this act in the case of all defective children over the age of 7—

(*a*) Who have been ascertained to be incapable by reason of mental defect of receiving benefit or further benefit in special schools or classes, or who can not be instructed in a special school or class without detriment to the interests of the other children, or as respects whom the board of education certify that there are special circumstances which render it desirable that they should be dealt with under this act by way of supervision or guardianship;

(*b*) Who, on or before attaining the age of 16, are about to be withdrawn or discharged from a special school or class, and in whose case the local education authority are of opinion that it would be to their benefit that they should be sent to an institution or placed under guardianship.

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SEC. 30.—(h) (iv) Nothing in this act shall affect the duties or powers of local education authorities under the education acts; and the duty of ascertaining what children over the age of 7 and under the age of 16 (hereinafter referred to as defective children) are defectives shall rest with the local education authority as hereinafter provided and not with the local authority under this act; and such last-mentioned authorities shall have no duties as respects defective children, except those whose names and addresses have been notified to them by the local education authority under the provisions of this act.

SEC 31.—(1) The duties of a local education authority shall include a duty to make arrengements subject to the approval of the board of education—

(*a*) For ascertaining what children in their area are defective children within the meaning of this act;

(*b*) For ascertaining which of such children are incapable by reason of mental defect of receiving benefit or further benefit from instruction in special schools or classes;

(*c*) For notifying to the local authority under this act the names and addresses of defective children with respect to whom it is the duty of the local education authority to give notice under the provisions hereinbefore contained.

In case of doubt as to whether a child is or is not capable of receiving such benefit as aforesaid, or whether the retention of a child in a special school or class would be detrimental to the interests of the other children, the matter shall be determined by the board of education.

(2) The provisions of section 1 of the Elementary Education (Defective and Epileptic Children) Act, 1899, shall apply with the necessary modifications for the purposes of this section.

The section of the act of 1899 above referred to is given herewith that the last paragraph may be better understood.

SECTION 1.—(1) A school authority, as defined by the Elementary Education (Blind and Deaf Children) Act, 1893, may, with the approval of the education department, make such arrangements as they think fit for ascertaining—

(*a*) What children in their district, not being imbecile and not being merely dull or backward, are defective; that is to say, what children, by reason of mental or physical defect, are incapable of receiving proper benefit from the instruction in the ordinary elementary public schools but are not incapable, by reason of such defect, of receiving benefit from instruction in such special classes or schools as are in this act mentioned; and

(*b*) What children in their district are epileptic children; that is to say, what children, not being idiots or imbeciles, are unfit by reason of severe epilepsy to attend the ordinary public elementary school.

It will be noted that these sections of the act place upon the local education authority the duty of—

(1) Making a diagnosis of feeble-mindedness, imbecility, or idiocy;

(2) Determining whether the child classed as feeble-minded is capable of benefiting from education in a special school;

(3) Of notifying the local authority, under the Mental Deficiency Act, of all defective children over the age of 7 (*a*) who are incapable of education in special schools; (*b*) who, though educable, are detrimental to other children; (*c*) who require

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supervision or guardianship under the Mental Deficiency Act; or (*d*) who after leaving a special school need institutional treatment or guardianship.

Under the Defective and Epileptic Act of 1899 the local education authority could segregate or not; consequently a diagnosis of feeble-mindedness was not necessary. The issue could be avoided. Under later legislation the local education authority must make a diagnosis, report to the local authority every such diagnosis, and, further, must report whether or not the child can profit by work in a special school. The education authority must also report to the local authority all who have reached the age of 16 and are about to be discharged from a special school, if the education authority thinks it would be best for such children to be sent to an institution or placed under guardianship.

Again, the attention of the education authority up to this time has been turned largely to a consideration of backward as well as feeble-minded children. The authority's first duty has been to take such steps as were most necessary to promote education, but now the work must go much further, for the duty of the local education authority is not only the segregation of feeble-minded children who are educable, but to say who are beyond the possibility of an education and must have institutional care or a guardianship all their lives.

The educational authorities are required to examine and classify all children of subnormal mentality. Although the authorities are not required to educate such children in special classes or schools, it is reasonable to suppose that before long a uniform plan for making diagnoses and returning the facts will be worked out. Undoubtedly the enforcement of the new act will give a great impetus to the segregation and training of the feeble-minded by the several local education authorities; for after they have made the examination and classification that the new law requires, they will very probably take the further step of providing special education.

At the end of the school year, July 31, 1913, 175 authorities had taken action under the act. As there are only 318 authorities in England and Wales, it will be seen that a majority of them have taken action. There are altogether 169 day schools and 8 residential schools. These schools accommodate about 13,000 children. It is estimated that there are 24,000 feeble-minded children in England and Wales.

A number of residential schools have been certified by the home office to receive children on committal orders under the Children Act, 1908. In other words, they receive incorrigible feeble-minded children just as the ordinary industrial school, which is under the care of

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the home secretary, receives the ordinary morally delinquent boy. One of these schools is in Acre Lane, Brixton, London. The children in these schools show a wide range of mentality, from simple backwardness to embecility, but no child entirely ineducable would be received and retained.

The great majority of children classed as feeble-minded are of the higher grade; that is, very few of them are wholly ineducable. The child who has been classed as imbecile or idiot needs, of course, permanent institutional care or a guardianship; but the child who has been classed as feeble-minded simply may or may not need such care, and here is another of the many problems to be considered by the local education authority. Some of these children may receive education in a special school and become entirely self-dependent; others may be educable to a considerable degree and yet be unfit to be left in the world dependent wholly on their own resources. Another reason why the Mental Deficiency Act will be an impetus to local education authorities to make special provision for the early education of their feeble-minded lies in the assurance that all such children can count on having a permanent home after they have passed the age of school life. On this subject Sir George Newman, in a recent report to the board of education, says:

> There is no doubt that some authorities have postponed making such provision as may seem desirable, owing to the fact that before the passing of the Mental Deficiency Act there was no likelihood that suitable provision would be forthcoming for the residential and prolonged care of children for whom such might be necessary.

In the same report he says also that—

> Under the altered conditions of the case it is probable that many authorities who have not yet taken action under the Defective and Epileptic Act of 1899 will adopt that act and administer it in conjunction with the Mental Deficiency Act of 1913.

The curriculum of these schools is varied and liberal, and school life generally is made as attractive as possible. The routine of the ordinary school can not be employed successfully. More variety and much less concentration are required. There is much manual work, and as a rule this is light and varied. Bootmaking, tailoring, rope weaving, and woodwork are the most common lines for the boys, while sewing, cooking, and laundry work constitute the chief lines in the girls' department. In the advanced years of the student's school life, if his ability and aptitude justify it, he may be allowed to concentrate his efforts on one of the lines of work above mentioned. In numbers of these schools some boys make the boots for the entire school, others make the clothes; while the girls do the housework and cooking. The value of such training will be greater under the new order

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of things, for more children than ever will be placed in a colony where they will spend their entire lives, and there do these various lines of work for each other.

Gardening is another work that is profitable for these children, and for this reason it is well for the schools to be located in the rural districts or in the suburbs. Such a location not only gives outdoor employment, but it gives outdoor life for play and recreation. But whether the feeble-minded child is taught in a dark room in the midst of a busy and crowded city or in the open-air life of the rural community; whether he is taught in a day school where he spends only a small part of his time and takes only one meal in the 24 hours, or is taught in a residential school where he spends his whole time—when he leaves the school he is going to need further care and protection. He can not go forth into the world and compete on equal terms with persons who are his mental superiors. On this point a short quotation from the chief medical officer's report for 1912 is instructive:

> The justification for an educational policy for children mentally abnormal is to be sought in the career records after the expiry of school age. It is now recognized that this is absolutely essential for children of this type. It is indisputable that the neglect of some sort of continuous supervision in the case of the feeble-minded is to court failure at the most critical periods in the life of the child. It is this situation which creates the necessity for after-care committees—
>
> (*a*) To follow up each case after leaving school;
> (*b*) To assist in securing employment;
> (*c*) To visit and supervise when the employment has been found; and
> (*d*) To investigate as to conditions and circumstances affecting the career of the child.
>
> In my previous reports reference has been made to the results of after-care work in London and other districts, and I propose to continue some of these references. After-care of the feeble-minded in London is carried out by the After-Care Association for Elder Mentally Defective Children (established in 1910). In the majority of cases the teachers bear a large burden of the duty and succeed in rendering valuable service by keeping constantly in touch with ex-pupils, encouraging them to visit the schools freely, arranging evening social gatherings for them, and helping them in everyday life outside of the schools.
>
> The members of the committee perform admirable service in the case of certain schools in obtaining employment for boys and girls. The objects of the association are to cooperate with the parents and other agencies in obtaining suitable employment for boys and girls leaving the special schools of the London County Council for elder mentally defective children, in order that as large a proportion as possible of the children may become in a measure self-supporting and be prevented from becoming paupers; to endeavor to find homes for the children needing custodial care; to keep in touch by means of visitation with the children placed in situations; to tabulate statistics as to the number of children who are able to work without supervision, who need permanent supervision, and who need custodial care. Each child is visited regularly by the representative manager.

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These after-care committees accomplish a great deal in making the defective children more prosperous and happy, yet it is impossible to so care for all of them as to make them independent and self-supporting. The Mental Deficiency Act of 1913, which has been referred to several times, is an "Act to make further and better provision for the care of feeble-minded and other mentally defective persons." It is not an education act, and its connection with the school work, as already mentioned, is its requirement that the school medical officers select those children who at the time, or who will later, need the care provided for in the act. The purpose of the act is to provide for the institutional care of those persons who not only are incapable of taking care of themselves, but who would be a menace to society if allowed to live outside of the environments provided for them. By having the school medical officers select such persons and classify them during school life, much afterdifficulty is avoided.[1]

Schools for children afflicted with chronic contagious skin diseases.—Although schools for children afflicted with chronic contagious skin diseases are felt to be greatly needed, few have as yet been provided. The Edinburgh school board maintains a typical school of this class, which, at the time of the visit by the writer, had about 60 children in attendance, of whom nearly two-thirds were afflicted with ringworm and one-third with favus. So long a time is required for the treatment of these diseases that if the victims are excluded from school until cured, they would get very little education, and without the special school would never get any regular treatment. Some of the pupils in the Edinburgh institution have been absent from the ordinary school for three or four years at the time they entered, and 13 of the pupils had never been to an ordinary school at all. The building comprises three classrooms, a dining room, a treatment room, a lavatory and bathroom, a staff room, and caretaker's quarters. Three teachers are employed and a nurse who gives as much of her time as is necessary.

Open-air schools.—The first open-air school in Great Britain was established in 1907 by the London County Council, in Bostall Woods, near London. The success of this first school led quickly to the establishment of others not only in London but throughout England.

[1] Reference may here be made to the industrial schools of Great Britain, which correspond to reform schools in the United States. These industrial schools do not belong to the public elementary school system, but are under the home secretary. It is worthy of note, however, that a few of the special elementary schools for mentally defective children "have been certified by the home office to receive children on committal orders under the Children Act of 1908." It may be said further that the school physicians look after the children in industrial schools as they do in other schools, and the opinion is increasing that before a child (boy or girl) is committed to a reform institution a searching physical and mental examination should be made in each case.

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From the beginning the open-air school has been recognized as both a remedial and a prophylactic agency.[1]

MEDICAL TREATMENT.

Medical treatment, as well as medical inspection for the presence of defects, was regarded as necessary from the inception of the work, and ample provision was made for it in the first general law on the subject.

The duties of the local education authority, as specified in the act of 1907, include—

> the power to make such arrangements as may be sanctioned by the board of education for attending to the health and physical condition of the children educated in public elementary schools, provided that in any exercise of powers under this section the local education authority may encourage and assist the establishment or continuance of voluntary agencies and associate with itself representatives of voluntary association for the purpose.

It is explained that only such treatment will be considered as is provided by the education authority or secured through its agency. Treatments secured under laws not administered by the local education authority, i. e., general health laws, the Children's Act, and the Poor Law, are not included under the provisions of the education department and consequently do not come within the scope of this report.

As a matter of course the first effort is to secure treatment by the family physician. The examination is made by the school medical officer or his assistant, and the parent is duly notified of his findings. The parents are invited and urged to be present at the examination, and the figures show that a large number of them accept the invitation. This gives the medical officer an opportunity not only to secure information that will be of value to him in reaching a diagnosis and recommending treatment, but also an opportunity of talking with the parents and showing the necessity of securing the treatment recommended.

But in Great Britain, as elsewhere, the sending of a note to the parent informing him of the condition does not settle the matter. Probably not over 20 per cent of the cases would receive proper attention if nothing else were done. Follow-up work is required to get results. As stated in the section on administration, 241 authorities have employed school nurses. The great majority of these have been engaged in the work of inspection and following up. But by no means is all the necessary follow-up work done by the nurses. Teachers, attendance officers, and the after-care committees take an important part in this work. In London alone there are over 900 after-care committees, and the value of their work is incalculable.

[1] For a description of open-air schools in England, see Bulletin of the Bureau of Education, 1916, No. 23.

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Follow-up work must also be supplemented by reexaminations to determine the extent to which the original notice to parents and the follow-up work have been successful. Often cases that are reported as treated upon reexamination show that the treatment has been in name only. The follow-up work enables those engaged in it to determine whether those whose homes and parents they visit are entitled to free treatment and other free help, such as free glasses. But with all the follow-up work, not more than 50 per cent of those in need of attention get it, except in the case of contagious eye and skin diseases, where treatment is compulsory.

THE SCHOOL CLINIC.

The most effective agency in securing treatment for school children is the school clinic. The board of education limited the treatment that was to be given free, and in 1912 an official circular stated:

> It appears that the disorders and maladies which are most suitable for treatment directly provided by the local education authorities under section 13 of the Education (Administrative Provisions) Act, 1907, are limited in practice to minor ailments, such as uncleanliness, ringworm, and other common skin diseases of children, defective eyesight or hearing, some external affections of the eyes or ears, and various temporary conditions of the mouth (including teeth), nose, and throat.

A school authority may secure from the board a grant for medical treatment and may establish a place for such treatment without providing for all of the above physical defects. For it is not absolutely necessary for the authority, in order to secure a grant, to provide the means for treatment. If the treatment for some of the defects can be best secured at some institution already established, well and good. "The essential thing is that the ailing child should obtain adequate treatment. Only in case such treatment can not be secured from existing institutions is it necessary for the authority to consider means for the necessary treatment."

The school clinics are of two kinds. One is for the purpose of more thorough examination than can ordinarily be made in the school building. The other is for the purpose of carrying out regular treatment. These may both be located in the same building; indeed, this is the rule. The growth of the clinic method of treatment has been very rapid. In the board's suggestion of what should be treated no surgical conditions are mentioned, but much work of this kind is arranged for in the established hospitals. Nearly one-half of the education authorities in England and Wales, however, have established one form or other of school clinic. A statement concerning one inspection clinic follows:

> At East Ham the inspection clinic is conducted on each school day, as follows: Monday, Tuesday, Wednesday, and Thursday from 9 a. m. to 10 a. m., and on

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Friday from 9 a. m. until noon. The school medical officer, Dr. Benton, reports as follows: Cases which required detailed and lengthy examination were often met with between the hours of 9 a. m. and 10 a. m., and if the nature of such cases allowed of their being referred to Friday forenoon, when more time was available, this was done. The services of both the school medical officer and his assistant were then available for consultations, where such were deemed advisable. The supply of cases to the inspection clinic were from the following sources:

(1) Cases referred from routine medical inspection for further examination.
(2) Cases sent by school-teachers.
(3) Cases sent by attendance officers.
(4) Cases sent by divisional committees.
(5) Cases brought by parents.

The number of consultations at the inspection clinic during 1912 was 3,493. It will be remembered that the number for 1911 was 1,275.

Up to July, 1913, 140 treatment clinics had been established in 97 different areas. The following are typical:

1. Aberdare.—Eyes, ears, pediculosis, ringworm, impetigo, scabies, eczema, and teeth.
2. Ashton-under-Lyne.—Eyes, ears, ringworm, eczema, and wounds.
3. Barking Town.—Minor diseases of eyes and skin.
4. Barry.—Eyes, pediculosis, ringworm, impetigo, eczema, and itch.
5. Batley.—Eyes, ears, impetigo, ringworm, and verminous conditions.
6. Beckenham.—Eyes, ears, ringworm, impetigo, scabies, eczema, acne, alopecia, and teeth.
7. Bexhill.—Teeth.
8. Birmingham.—Seven clinics covering about as above.
9. Bromley.—Eye and ear diseases, tonsils and adenoids, ringworm, impetigo, scabies, eczema, boils, etc., and teeth.
10. Coventry.—Eyes, ringworm (X rays), and teeth.
11. Folkestone.—Ringworm.
12. London.—Twenty-three centers, treating the various ailments previously mentioned.

Skin diseases, diseases of the eye, ear, nose, and throat, minor ailments, and verminous conditions constitute practically all the work of the treatment clinic. The scope of work of the various clinics differs very much. Some of them do nothing but dental work, while a few do practically everything. The needs of any particular authority determine, in a very large measure, the scope of activity. The rate of grant allowed by the board of education depends upon the character and working efficiency of the authority's provision of medical treatment for those who are in need of it and who would not otherwise receive it. "Necessitous" children are not the only ones included. The board takes the position that all children who do not have treatment provided for them outside of the clinic should have it at the clinic, but that if the parents are able to pay for it they should be made to do so.

The clinic for dental work in Birmingham is one of the best. The schools have the use of the buildings and equipment of the Birming-

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ham School of Dentistry. The work of the dental school is carried on in the forenoon and the school clinic in the afternoon. The building is a desirable one, centrally located. Besides this spacious central clinic for dental work, there are several dental clinics in the city in connection with other clinics. Altogether there are seven clinics in this city, with dental work in five.

In Bradford, which was one of the pioneer cities in England in respect to medical inspection, school feeding, and medical treatment, the work has greatly increased in amount and especially in provision for the treatment of children suffering from various disabilities. The number of children treated at the school clinics increased from 841 in 1908 to 6,279 in 1912. The examination and treatment of the eyes of the children is extremely thorough, and the authorities obtain glasses for the children, when needed, by contract at 30 cents a pair.

Sheffield maintains one of the most complete school clinics in the country. All children requiring attention are sent up by head teachers to the school medical department, which is open every Friday and Saturday morning for the examination of these cases by the school medical officers and nurses, who are in attendance on those days. As a result of the examinations, a decision is reached as to the advisability of continuing children in the regular schools or sending them to some one or other class of the special schools.

Among special features of the medical treatment should be mentioned the X ray and skin department, the dermatologist in charge of this work giving three half days every week to the treatment of ringworm and three half days to the diagnosis and treatment of other diseases of the skin. He is assisted by a nurse who devotes all her time to the work. In 1913 a new X ray apparatus was procured, the treatments for that year having increased from 2,706 to 8,238; the number of cases from 709 to 2,593. The average time of treatment by the X ray is 27 days, whereas it is estimated that if the ointment treatment were used, the children would have to lose at least eight months from school. Three months after a child is discharged as cured the nurse reexamines him to see if his condition is satisfactory.

The ophthalmic department was added in 1913 with results that have fully justified the extension. Particular attention has been given to children in the incipient stages of tuberculosis. On this subject the city medical officer says:

> It is now known that this disease, particularly in its pulmonary form, which is the most infectious, occurs more commonly in children than was formerly suspected. The explanation of this probably lies in the fact that children, excluding those in the first two or three years of life, show a marked tendency toward recovery, while adults are more liable to serious illness and permanent damage. This tendency to recovery found in children is a most important reason why children suffering from the early stages of the disease

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and delicate children living in contact with cases of consumption should be kept under the closest possible supervision.

The work of the public health and school medical departments of the city have shown the urgent need for dealing with the disease in childhood, while the establishment of a municipal tuberculosis dispensary has provided the means. In order to obtain the maximum of efficiency and the minimum of duplication, in dealing with one set of patients who belong equally to the school clinic and the tuberculosis dispensary, both departments have coalesced; for this reason the tuberculosis medical officer has been appointed by the education committee as a special school medical officer to deal with tuberculosis in children, and the dispensary has been established in the same block of buildings as the school clinic.

Source of cases for the school tuberculosis dispensary:

(1) All cases found during routine medical inspection.
(2) Special cases brought to the attention of the medical inspector at school.
(3) Notified children attending an elementary school, the names of such children being obtained from the medical officer of health.
(4) Suspected cases sent by the medical practitioners, nurses, women inspectors, patients of the tuberculosis dispensary, and others.
(5) Children living in the same house as a notified consumptive. All children of notified consumptives are sent to the dispensary for examination as soon as possible after the notification has been received by the medical officer of health.
(6) Cases found during the examination of bursars, pupil teachers, teachers, and care-takers who may be referred by the committee for an opinion, and to secure the necessary preventive measures being taken.

The children come to the dispensary and are carefully examined by one of the school medical officers, all cases of doubt or difficulty being referred to the chief tuberculosis medical officer. The homes of notified cases are supervised by the women inspectors. A record of the child's weight and symptoms is made, and the child is instructed to attend the dispensary again in periods varying from every week to every six months. A certain number of these children are under their own family doctors and some are under hospitals, but all come up at the appointed times in order that we may be sure that they really are obtaining adequate treatment.

A very important part of the work of the dispensary is the regular examination of the children who have doubtful signs, and it is these children who can be saved if sufficient open-air school accommodation is provided. At the present time the accommodation at Whiteley Wood is totally inadequate to meet the demand.

No notification has been made except in those cases that have definite lung lesions. All the doubtful cases are put in the observation class and these are followed up until it is definitely decided that they are cases of phthisis, or that the chest condition has cleared up.

School clinics and treatment centers of London.—As already stated, systematic medical inspection of schools in England was begun in London in 1891, and broad scope was given to the work before the passage of the act of 1907. In his report for 1901 Dr. Kerr, chief school medical officer for the metropolis, noted that the first steps had been taken looking to the treatment of diseased children. On this point he said:

The selection of children whose efficiency in school is damaged by dirt, parasites, chronic diseases of the ears, or impaired visual acuity is just beginning.

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The treatment of all these matters is tedious, has to be thorough, but is a routine of the most monotonous and uninteresting description. The burden at present falls on the hospitals, and they have not yet adapted themselves to it. Whether even with time they can ever efficiently discharge this public duty is at least doubtful.

In his report for 1911 Dr. Kerr stated that 38 per cent of the children examined had medical advice cards issued, and in the same report he considers the agencies for treatment at the disposal of the education authorities. At that time arrangements had been made with many hospitals for the treatment of school children, 13 of which had the sanction of the board of education for a subsidy from the rates. These hospitals dealt with 28,000 children. There were also 21 other institutions, providing for a total of 56,000 children. In addition there were charitable organizations that gave the school medical service valuable assistance. Some of these agencies treated only a few conditions, thus four centers dealt with the teeth only, two with the eye, while others treated ear, nose, and throat.

The year after this report was issued, the London County Council decided that all of the school medical work, including the organization and administration of medical inspection and treatment of children, should be placed under the direction of the medical officer of health of the County of London. As a result of this decision the public-health department, including the divisions pertaining to the school medical work, was reorganized. The same year the State recognized the claims of local authorities for grants toward the expenses of the medical treatment of school children and services auxiliary thereto, and of the £60,000 appropriated for this purpose, London received about £13,000 for the year ending July 31, 1912. This sum represented about 58 per cent of the entire expenditure on the work of medical treatment. As a result both of the new organization and the increased funds, the work of medical inspection was extended and more adequate provision made for medical treatment. Arrangements with the hospitals for treating school children were continued, and these were supplemented by the establishment of medical treatment centers. Twelve hospitals and 22 centers were included in the scheme. During the year 1912 treatment was conducted at 11 hospitals and 17 centers, with accommodation for 73,058 children. Additional provision was contemplated with the view of securing opportunities for the treatment of not less than 100,000 children. Formal agreements were entered into with the hospitals, which are illustrated by the account of those in force at the London hospital, as set forth in the official report:

Arrangements have been made with the authorities of the hospital to provide treatment for the following numbers: Eye cases, 3,000; ear and throat cases, 3,500; ringworm cases, 500. The London County Council pay for the

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medical staff at the rate of £50 per annum for each half-day's work per week, and in addition pay the hospital 2 shillings for each case treated in the eye and throat departments and 7 shillings for each case of ringworm treated by X rays. Ringworm treated by drugs is paid for at the rate of 2 shillings per case.

Separate waiting rooms, consulting rooms, and operating rooms are allotted at the hospital to the council's cases.

Eye cases are attended by three of the hospital staff, each of whom attends on two half days per week.

Parents are instructed to apply atropine ointment three times a day for a week before the examination.

Throat and ear cases are dealt with by three members of the staff, two of whom attend twice a week and one four times. The out-patient anesthetist or his assistants are present at operations, which are performed at once, if the parent consents. If the parent is not present, the child is referred at once for consent to be obtained. The arrangements in regard to recovery are excellent, and every case is reexamined within a week. Ten operations can be performed at each session.

No case is attended without a voucher, but care organizers are present, and have powers to issue vouchers forthwith at the hospital at discretion. Children who fail to keep appointments are referred to the local care committees for visitation.

Coordination of the staff with the school medical service is established by means of notes of special cases sent by the latter to the medical staff of the hospital on the one hand, and by the medical staff supplying notes of the work done by them on the other.

The provisions at the school treatment centers necessarily vary. At the Wandsworth School treatment center (315 Garratt Lane) the arrangements are as follows:

The clinic is equipped for dental work, treatment of the eyes, ears, and throat, and for the removal of inflamed tonsils and adenoids. A local branch of the British Medical Association names the staff, subject to confirmation of the London County Council. The staff consists of six physicians and three dentists. One physician attends every afternoon from 2 to 5. One dentist attends for two days of each week from 9.30 to 12.30. The pay is 21 shillings per half day, the usual rate for this kind of work throughout the country. The head nurse is in attendance all the time and does clerical as well as other work. A nurse is in attendance upon the physician or dentist all the time he is on duty; an additional nurse is employed on two days in the week when surgical operations are performed. An optician is also employed to fit frames for glasses. The London County Council gives two shillings for each case treated, which amount goes to the upkeep of the place. The council also donated £100 for the equipment of the place.

Cooperation between the school authorities, the health department, and the parents in this important work is promoted by the use of official circulars, blank forms, and vouchers, specimens of which are given in Appendix (p. 65).

It is worthy of note that the plan of including the school medical inspection service of London in the health department of the council has not hampered or diminished the school service. This now in-

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A. DEFECTIVE CHILDREN TAKING MIDDAY MEAL.

B. INDIVIDUAL CARE AND ATTENTION.

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A. EDUCATION FOR CRIPPLED CHILDREN.

B. CONVEYING CRIPPLED CHILDREN TO SCHOOL.

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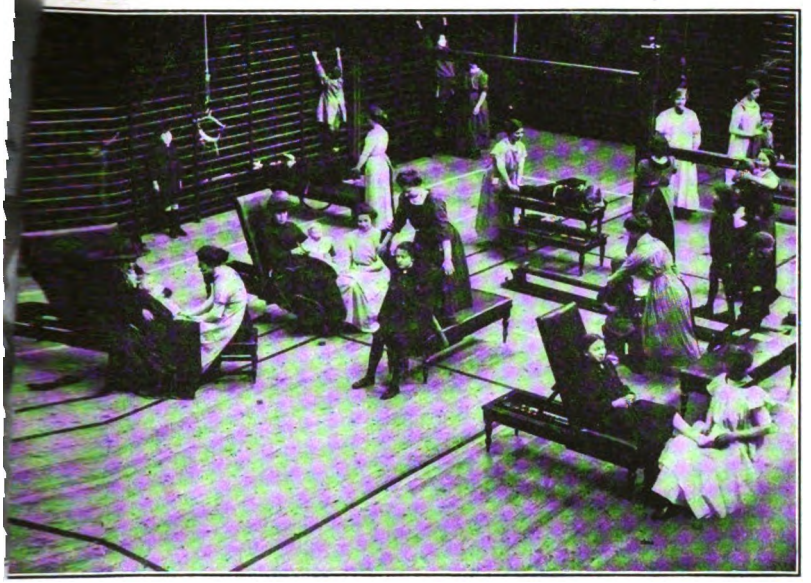

A. CARNEGIE INSTITUTE, DUNFERMLINE, SCOTLAND.

B. UTILIZING THE OUT OF DOORS EVEN IN THE CITY.

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cludes five divisions, each under the control of a divisional medical officer. The assistant force comprises 17 full-time permanent, 20 full-time temporary, and 20 part-time school doctors.

Medical treatment for school children in Scotland.—Although medical treatment is not general in Scotland, excellent work is done in several centers. The city of Glasgow maintains one of the most thorough and effective systems in Great Britain. Edinburgh is making a beginning in this direction. Particular interest in this report attaches to the city of Dunfermline. Conditions which led to the establishment of the school clinic here are fortunate and peculiar. This is the home of the Dunfermline College of Hygiene and Physical Training, established by funds which Andrew Carnegie placed in trust for the promotion of the physical well-being of the children of the town. The college grants a diploma to students who finish a two-year course. In 1909 this college was recognized by the Scotch education department as a central institution for the purposes of the education (Scotland) act of 1908 and consequently is a center of special training for school medical officers throughout the country. In regard to the school clinics, which have become a valuable part of the work of the college, the trustees express the hope that they may serve as models for other systems and "they extend to all educational bodies and others interested a hearty invitation to visit and inspect at any time any of their branches of work which may be of special interest to them." The school medical officer of Dunfermline makes the following statement in his report for 1911–12:

> The trustees, acting on the advice of their medical officer, opened the first portion of their school clinic in February, 1910. Since then the work has continued to extend. The school clinic has always received the whole-hearted support and sympathy of the members of the trust. Their desire to extend the usefulness of the clinics and to stimulate interest in the question of treatment could have no stronger proof than is shown in their decision to erect a magnificent, fully equipped school clinic and college of hygiene at a cost of £20,000. The clinics at present in operation at Dunfermline are, so far as organization is concerned, probably as complete as any in this country. In certain particulars they provide forms of treatment—for example, the remedial treatment of deformed and other conditions by means of special gymnastic exercises, apparatus, etc.—which are not available in the majority of clinics.

But the College of Hygiene and Physical Training and the school clinics do not constitute all the activities of the Carnegie Dunfermline trustees. The medical inspection itself is a part of their work. In his letter explanatory of the trust, Mr. Carnegie, after stating the amount of the gift, $3,375,000, said that it was—

> all to be used in attempts to bring into the monotonous lives of the toiling masses of Dunfermline more of sweetness and light; to give to them—especially the young—some charm, some happiness, some elevating conditions of life which residence elsewhere would have denied; that the child of my native

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town, looking back in after years, however far from home it may have roamed, will feel that simply by virtue of being such, life has been made happier and better. If this be the fruit of your labors, you will have succeeded; if not, you will have failed.

It has been pointed out before that one fact universally recognized in all the work in Great Britain is that medical inspection that is not followed up by medical treatment falls far short of what it should be. The Dunfermline trustees in their school clinic are going even further than is usual. During the year 1912 the number of cases treated was 3,456, the total number of visits reaching 20,000. Since 1914 the clinic has taken children under school age. This has led to an experiment in another direction—a school for mothers. The object of this school is to teach mothers of the poorer classes how to care for children under 1 year of age. A nurse has charge of the work, assisted by volunteers. During the first year of the experiment 284 mothers, with 322 children, were in attendance, and with the increased facilities offered by the new buildings for the clinic the trustees hope to develop an effective supervision of the health of all children under school age.

PHYSICAL EDUCATION.

Physical education is a remedial measure only in part; it is more prophylactic than curative. Yet physicial education is essential to the child's physical progress, without reference to his being defective at the time or to his ever becoming physically defective. In practice there has been too much tendency to associate physical welfare work with a child's health or lack of health. It seems to be taken for granted that if the child is kept *well*, in the sense of keeping him free from disease, there is nothing else to be done.

The board administers the physical training department through the medical inspection staff, and recommends to local authorities a similar course. But it is the board's view that physical training is only a part of the broader work of physical welfare in general, and should be made a subordinate part of the greater system; that the school medical officer should have supervision over all work that has for its object the child's physical welfare. While the majority of authorities have not yet placed their physical training in such relation to the medical inspection department, progress in that direction is very satisfactory, and doubtless the time is not far distant when all lines of physical welfare work will be under one supervision, and that will be the one with the school medical officer at the head.

While the administration of the various departments of the physical welfare movement may not bear that relation to each other that the board hopes to see in the near future, its views on the

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place and importance of physical exercise are so fundamentally sound that the work is sure to prosper under the board's guidance. In the "Prefatory Memorandum" of its "Syllabus of Physical Exercises for Schools," issued in 1909, it is said:

> Proper nourishment, effective medical inspection, and hygienic surroundings will not of themselves produce a sound physique. A further requirement is physical exercise. This may, no doubt, be promoted, especially in the case of country children, by a variety of means, but none of these is such that special physical exercises should be entirely dispensed with.

If the child in the country needs a definite course of physical exercise for his proper physical development, it is reasonable to think that the child in the city has even a greater need for such exercises. The authority above quoted says on this point that "these exercises are indispensable both for the development of the body and for the correction of the defects of evil habits induced by an unhealthy physical environment." The position is taken that physical training is important and necessary entirely separate and apart from any idea or connection with disease. The Swedish system of gymnastics, which has been adopted in several European countries, is the one generally employed. The necessity of a graded course, and its adaptation to the needs of the children, are made clear. No child is to be required to carry on work of this kind that is not profitable to him. At this point the work of the school medical officer is invaluable.

Another important principle expressed in this syllabus is that the object of physical training is not mere conformity to gymnastic standards or the production of any particular type of gymnast, but rather the careful and well-balanced development of the physical powers of each individual child.

> The object of physical training is to help in the production and maintenance of health in body and mind. The conditions of modern civilization, with its crowded localities, confined spaces, and sedentary occupations; the increasing need for study and mental application; and the many social circumstances and difficulties which restrict opportunities for natural physical development, all require that children and young people should receive physical training by well-considered methods, not for the purpose of producing gymnasts, but to promote and encourage, by means of such training, the health and development of the body.
>
> The purpose of physical training is not to fit the child to perform certain more or less difficult exercises, but to give him a stronger and more healthy body and to aid him to approach more nearly to the ideal of perfect physical development.
>
> It is especially during the period of growth, when body and mind and character are immature and plastic, that the beneficial influence of physical training is most marked and enduring; and the highest and best results of education can not be attained until it is realized that mental culture alone is insufficient, and that physical exercise is necessary to the development not only of the body but also of the brain and the character.

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Physical training should thus be commenced when the child first attends school and should be continued at least throughout the whole of the growing period. The natural free movements of the very young child supply all that is required at the beginning of life in the way of physical exercise. When, however, the child first comes to school, his natural desire for movement is necessarily restricted for purposes of organisation and discipline. This restriction must be compensated by frequent opportunities for free movement, which should chiefly take the form of play. This constitutes the first step in what may be considered as physical training. By degrees a few simple exercises may be introduced into the curriculum, which should still contain a large element of play, but play directed by the teacher. The exercises should then be gradually increased until they take the form of regular lessons on the lines indicated hereafter. It is of the greatest importance that the recreative element should never be omitted, if the best results are to be gained. Enjoyment is one of the most necessary factors in nearly everything which concerns the welfare of the body, and if exercise is distasteful and wearisome, its physical, as well as its mental value, is greatly diminished.

On the effects of physical training the syllabus has the following to say:

Physical training has, or should have, a twofold effect; on the one hand a physical effect and on the other a mental and moral effect, which for convenience may be termed educational in the popular sense. The direct results upon the health and physique of the child may be described as the "physical effect." The teacher must clearly recognize that the child is a growing organism whose powers for physical work vary definitely and widely at different ages, and that a scheme of exercises designed for men undergoing training is not suitable for young boys and girls. To meet the special circumstances of continuous growth and development, a course of graduated exercises has been framed to suit children of all ages and both sexes, which aims at training every part of the body harmoniously. Not only can it be adapted to children of various ages, but under medical supervision it can be used to counteract and remedy various physical defects of weakly children.

Exercises, if rightly conducted, also have the effect, not less important, of developing in the children a cheerful and joyous spirit, together with the qualities of alertness, decision, concentration, and perfect control of brain over body. This is, in short, a discipline, and may be termed the "educational effect."

These two elements are obviously blended in varying degree in every suitable exercise and, according to circumstances, now the one aspect of the exercise, now the other, is to be regarded as the more important. The difference consists rather in the stage at which, and the manner in which the exercise is taken than in actual difference of movement.

The first syllabus on the subject issued by the board of education in 1914 was intended to secure the introduction of physical training into all the schools on reasonably uniform lines. As a result of the examination of many systems, the board had decided that the free standing exercises of the Swedish system, together with suitable gymnastic or playground games and simple dance steps, would prove the most satisfactory form of physical training, and hence the scope of the training was set forth in the syllabus as follows:

(1) The adoption of the Swedish system in such a form as to make it universal, progressive, and physiological.

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(2) The issue of an official syllabus for use in all the schools.

(3) The training and examination of the teachers in the use and application of this syllabus.

(4) Inspection by the board of education of the work as carried out in public elementary and secondary schools.

In 1909 the responsibility for the administration of the inspection of physical training was placed upon the medical department, and five experts, two men and three women, were appointed to assist in the work.

As soon as physical training was required in the schools, the want of teachers properly prepared for the work became evident. Consequently the system of training was made compulsory in the training colleges for teachers, while as a means of preparing teachers already in the schools to conduct the training, evening classes and holiday classes were encouraged.

Little has been done in the way of employing physical training for the correction of physical defects, but a beginning has been made. In Brighton small classes have been given corrective Swedish exercises for a period of three months, followed by a modified continuation of the exercises. At Bromley a small class has received at the school clinic weekly instructions in proper breathing, a new departure in clinical work. Experience shows, however, that corrective physical training must be undertaken cautiously. It involves watchfulness and detail of the most exacting kind and a great amount of work, since children needing such training are numerous and must have individual attention. In recognition of the difficulties, the board of education recommend that the local authorities should limit arrangements to two classes of children. One class should include all children suffering with spinal curvature sufficiently severe to warrant individual treatment, but no so severe as to seem hopeless. It is suggested by the board of education that the school clinic would be a good place for carrying out the prolonged course necessary for such cases, and that the exercises should be given by a trained expert, whose work should be under the supervision of a medical officer and preferably a school medical officer who has had special opportunities for studying this subject. The second class comprises all children with minor defects. Concerning these it is recommended that "a daily lesson given at the school to a reasonably small class of children, conducted either by an expert instructor or by the class teacher acting under the directions of the expert, is perhaps the best practical way of meeting the difficulty." The hope is further expressed that, in large schools where there are many children suffering from malnutrition and poor physical development, this plan will be successfully carried out by many local authorities.

From the first the chief medical officer has cautioned the school authorities against expecting immediate results from the introduction

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of physical training into the school. Much patient, steady work extending over the whole period of school life is necessary if the physical exercises are to produce lasting effects. When the system of training was begun few teachers were prepared to give the exercises properly, and progress in this direction was hampered somewhat by the more pressing needs revealed through the medical inspection. In his report for 1911 the chief medical officer states that—

"The use of the Syllabus of Physical Exercises, issued in 1909, appears to be almost universal"; further, that "the interest displayed by the teachers is rapidly becoming more marked, and a gradual but steady improvement is taking place in the teaching of physical exercises in the schools."

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V. RÉSUMÉ.

In concluding this survey it seems advisable to dwell upon the salient features of the system of school medical inspection as it has developed in Great Britain. The work, it may be recalled, was started in London several years before it was made a legal requirement for the entire country. The scope early given to the work in the metropolis, and the complexity of the problems which there devolved upon the medical officer, have given great weight to its example and counsels. The main divisions of the service were started experimentally in that city and were subsequently incorporated in the regulations of the board of education. London has also maintained additional features which it would be impossible to extend to smaller areas, but which have yielded results of universal value. For example, a research laboratory was established in the capital as early as 1902 and its administration provided for systematic records of all observations conducted by the experts in charge; these records have been steadily maintained to the present time. The system of special inquiries, which are conducted in all the larger cities, was early undertaken in the metropolis and there led to discoveries respecting the causes of backwardness in children which could not have been ascertained under ordinary conditions. Such, for instance, was the discovery of the presence of congenital aphasia, an infirmity the presence of which had never been suspected, but which explains the backward condition of many pupils.

The passage of the education act of 1907 made the board of education the responsible authority in regard to arrangements for that duty on the part of local authorities. From the beginning the board took a broad view of the work and more and more the school medical inspection was treated as an important part of a greater system. This system includes all efforts made by the State for the physical betterment of the race. Questions of social and industrial hygiene, of eugenics, of physical education, and of general public health all form a part of the great work.

From the beginning, also, it has been the aim of the British system to relieve children suffering from hunger, disease, and infirmity, as well as to discover the cases needing relief. In this effort equal care has been taken to minister to the needy child and at the same time protect the State and the private practitioner from imposition. The treatment provided by the State is thorough. It does not stop with the present condition of the child, but seeks for the cause in the home conditions, the social or the industrial environments of the child, in the belief that the removal of the cause may prevent a re-

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currence of the condition. If a school child is the victim of filthy conditions in his home, the whole family may be taken to the cleansing station for treatment, and the home iself subjected to a complete renovation. Such is the British idea of treatment in the broad sense, and while not all authorities are doing such thorough work, it is the universal aim.

Everywhere, also, the authorities are guarded against pauperizing the parents. In everything that the schools do to improve the physical welfare of the child, the parent is called upon and is urged to bear part of the expense if it is possible for him to do so.

The proper coordination, subordination, and correlation of the different branches of the work are emphasized in all instructions issued by the board of education. The two great departments of health—the general health department and the school department—are urged to work in harmony. A majority of the local education authorities have made the medical officer of health for their area the school medical officer, and where this has not been done, hearty cooperation between the heads of the two departments is required. The disposition to follow the instructions of the board are signally illustrated by the action of London County Council, which in 1911 placed the control of the school medical work under the county medical officer of health, with results which are commended in the latest report of the chief medical officer, as follows:

> The most noteworthy feature of the policy of unification has probably been the more intimate relationship which it has been possible to effect with the local medical officers of health, leading to more uniformity in methods of procedure in dealing with outbreaks of infectious diseases in the schools; and as an instance of this, it may be mentioned that the powers of school closure conferred upon local sanitary authorities are now very rarely utilized.

These results, it is recognized, are largely due to the organization of the whole work into six divisions, each under the direction of an experienced specialist. For example, Division 2, which comprehends all the research work of the system, is in charge of Dr. J. Kerr, formerly medical school officer for the metropolis.

The authority given to the board of education in respect to the medical inspection of schools is explicit; no school medical officer can be employed without the approval of this body, and no plan of medical inspection can be put into operation without first passing under the scrutinizing eye of the board's medical staff. All plans of school feeding must also be passed on by the board before they can be put into operation by a local authority if they provide for an expenditure out of the rates (local taxes). Thus the board of education has control of one branch of health work, while the general health officers have charge of the other, and they work in close union for the amelioration of suffering and the upbuilding of the manhood of the nation.

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APPENDIXES.

APPENDIX A.—SPECIAL INVESTIGATIONS CONDUCTED BY MEDICAL OFFICERS OF SPECIFIED LOCAL AUTHORITIES.

1. The effects of employment out of school hours on the health of school children. Eastbourne and other authorities.
2. The relationship of the different methods of feeding in infancy to the nutrition and dental conditions found in school children. Rutland and others.
3. The physical conditions of Jewish and Gentile children. Leeds.
4. Rheumatism and growing pains. Middlesex.
5. The health of red-haired children. Worcestershire.
6. The type of reading books used in school. Cheshire.
7. Vision and vision testing. Essex and others.
8. The relation of the size of the family to the physical condition of the child. Kingston-upon-Thames.
9. Squint in school children. Manchester.
10. The physical condition of half-timers. Accrington and Blackburn.
11. Night sweating. Wolverhampton.
12. The relationship between enlarged tonsils and dental caries. Rutland and Gloucestershire.
13. "Nervous" children. Essex.
14. Heart affections. Ilkeston and Staffordshire.
15. The after history of children with heart disease. London.
16. The family history of mentally defective children. Surrey.
17. Color work in schools. Manchester.
18. The lighting of schoolrooms. Abertillery and Cheshire.
19. The influence of school lighting upon vision. Cumberland and Shropshire.
20. Epilepsy in school children. Hampshire.
21. Pigmentation of eyes and hair. Scarborough and York.
22. The physical conditions associated with backwardness. Exeter and others.
23. Causes of dental caries. Shropshire.
24. Ringworm "epidemic" schools. Staffordshire.
25. The temperatures of schoolrooms. Edmonton and others.
26. Clothing and footgear. Sheffield.
27. The prevalence of goiter. Herefordshire and others.
28. The relationship existing between mouth breathing and dental caries. Staffordshire.
29. Deformities and malformations. Essex.
30. The home circumstances of tuberculous children. Scarborough and South Shields.
31. Ventilation, and observations and the amount of CO_2 in the schoolroom. Birmingham and others.
32. The causes of malnutrition. Bootles and others.
33. The relationship between tuberculosis and malnutrition and dental caries. Herefordshire.

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34. The physical conditions found in school children of different social types. London and Nottingham.
35. The fitting of school children's spectacles and the condition in which they are kept. London.
36. The prevalence, etiology, and effect of enlarged tonsils. Merionetshire.
37. The investigation of the condition of the water of a swimming bath used by school children. Abertillery.
38. Seating accommodation in schools. Birmingham.

Many of these investigations should prove of great value in the future for the medical inspection work. They all show a disposition on the part of the medical officers that means good for the future of the cause.

APPENDIX B.—SCHEDULE OF MEDICAL INSPECTION.

I. *Name* _____ Date of birth (exactly) _____
Address _____ School _____

II. *Personal History.*

(a) Previous illness of child (before admission): Measles, whooping cough, chickenpox, scarlet fever, diphtheria, other illnesses, which should include any other disorders which must be taken into account as affecting, directly or indirectly, the health of the child in after life, e. g., rheumatism, tuberculosis, congenital syphilis, smallpox, enteric fever, meningitis, fits, mumps, etc. The effects of these, if still traceable, should be recorded.

(b) Family medical history (if exceptional): State if any cases of, or deaths from, phthisis, etc., in family.

1. Date of inspection.
2. Standard (usually grade, in America) and regularity of attendance.
3. Age of child, to be expressed in years and months.
4. Clothing and footgear: Insufficiency, need of repair, and uncleanliness should be recorded (good, average, bad).

III. *General Conditions.*

5. Height: Without boots, standing erect, with feet together, and the weight thrown on heels and not on toes or outside of feet.
6. Weight: Without boots, otherwise ordinary indoor clothes. Height and weight may be recorded in English measures if preferred. In annual report, however, the final averages should be recorded in both English and metric measures.
7. Nutrition: General nutrition as distinct from muscular development or physique as such. State whether good, normal, below normal, or bad. Undernourishment is the point to determine. Appearance of skin and hair, expression, and redness or pallor of mucuous membrane are among the indications.
8. Cleanliness and condition of skin: Head, body, cleanliness may be stated generally as clean, somewhat dirty, dirty. It must be judged for head and body separately. The skin of the body should be examined for cleanliness, vermin, etc.; and the hair for scurf, nits, vermin, or sores. At the same time ringworm and other skin diseases should be looked for.

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IV. *Special Conditions.*

9. Teeth: General condition and cleanliness of temporary and permanent teeth, and amount of decay. Exceptional features, such as Hutchinsonian teeth, should be noted. Oral sepsis.
10. Nose and throat: Tonsils, adenoids, submaxillary and cervical glands, the presence or absence of obstruction in the nasopharynx is the chief point to note. Observation should include mouth breathing; inflammation, enlargement, or suppuration of tonsils; probable or obvious presence of adenoids, polypi; specific or other nasal discharge, catarrh, malformation (palate), etc.
11. External eye disease: Including blepharitis, conjunctivitis, diseases of cornea and lens, muscular defects (squints, nystagmus, twitchings), etc.
12. Vision: To be tested by Snellen's Test Types at 20 feet distance (=6 meters). Result to be recorded in the usual way, e. g., normal V=$\frac{6}{6}$. Examination of each eye (R. and L.) should, as a rule, be undertaken separately. If the V be worse than six-ninths or if there be signs of eye strain or headache, fuller examination should be made subsequently. Omit vision testing in children under 6 years of age.
13. Ear disease: Including suppuration, obstruction, etc.
14. Hearing: If hearing be abnormal or such as to interfere with class work, subsequent examination of each ear should be undertaken separately. Apply tests only in general way in case of children under 6 years of age.
15. Speech: Including defects of articulation, lisping, stammering, etc.
16. Mental condition: Including attention, response, signs of overstrain, etc. The general intelligence may be recorded under the following heads: (*a*) Bright, fair, dull, backward; (*b*) mentally defective; (*c*) imbecile. Omit testing mental capacity of children under 6 years of age.

V. *Disease or Deformity.*

17. Heart and circulation: Include heart sounds, position of apex beat, anemia, etc., in case of anything abnormal or requiring modification of school conditions or exercises.
18. Lungs: Including physical and clinical signs and symptoms.
19. Nervous system: Including chorea, epilepsy, paralyses, and nervous strains and disorders.
20. Tuberculosis: Glandular, osseous, pulmonary, or other forms.
21. Rickets: State particular form, especially in younger children.
22. Deformities, spinal disease, etc.: Including defects and deformities of head, trunk, limbs, spinal curvature, bone disease, deformed chest, shortened limbs, etc.
23. Infectious or contagious disease: Including any present infectious, parasitical, or contagious disease, or any sequelæ existing. At each inspection the occurrence of any such disease since last inspection should be noted.
24. Other disease or defect: Any weakness, defect, or disease not included above (e. g., ruptures specially unfitting the child for ordinary school life or physical drill, or requiring either exemption from special branches of instruction, or particular supervision.

Eyes—Mongoloid.

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V. *Disease or Deformity*—Continued.

Ears—Size, setting, conformation, lateral symmet... attachment of the lobe to the cheek, supernumer...
Tongue—Enlarged, furrowed, papillæ enlarged.
Teeth—Irregular, absent, enlarged incisors.
Palate—Arched, narrow.
Fingers—Webbed, clubbed, defective in number or ... numerary digits.
Limbs—Excessive length of upper limbs.

VI. *Mental Conditions.*

(*a*) Reaction of motor mechanism:

1. Formation of motor ideas. (Execution of simple ... ment from imitation.)
2. Storage of motor ideas. (Execution of simple *fam...* by word of mouth.)
3. Power of control, initiative, purpose, and concentr... of motor output. (Execution of familiar complex ...
4. Motor incompetence. Attitude in standing—pos... spine, and knees, gait, position of arms, hands, ... zontal extension, general balance.
5. Motor instability. (Habita) Rocking of body, ... spitting, biting nails, or licking lips.
6. Motor disturbance. Tremors (face, hands, tongue), ... lepsy, aphasia, hemiplegia.

(*b*) Reaction resulting from sensory stimulation:

1. Attention—color, shape, size, smell.
2. Formation of memory ideas: (*a*) Recognition; objects (*b*) Recollection.
3. Association of ideas.
4. Judgment (for example, length, size, distance).
5. Relationship (similarity, contrast, symbolism).
6. General concepts (possession, self-protection, purpose, ... tration, initiative).

(*c*) Emotional conditions: Interest, excitement, aggression, ... affection, etc., positive or negative phases.

(*d*) Tests of intelligence:

1. Description of pictures, models, objects, familiar events.
2. Letters, words, reading (word blindness).
3. Counting, manipulation of simple numbers, simple money ...
4. Writing.
5. Manual tests.

VII. *Diagnosis.*

(*a*) Physically defective—stating defect.
(*b*) Blind or partially blind.
(*c*) Deaf-mute or semideaf or semimute.
(*d*) Epileptic.
(*e*) Merely dull or backward.
(*f*) Mentally defective (feeble-minded).
(*g*) Imbecile: In this group symbols "a" to "g" are intended ... correlated when necessary.

VIII. *Treatment Recommended.*

(*a*) An ordinary public elementary school: (I) Normal; (II) but backward.
(*b*) A special class for dull and backward children.

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VIII. *Treatment Recommended*—Continued.

(*c*) Special school (day or residential): (i) Feeble-minded; (ii) morally defective; (iii) epileptic; (iv) unsuitable for special school—imbecile, ineducable, invalid.[1]

APPENDIX C.—SCHEDULE OF THE EXAMINATION FOR MENTAL DEFECTS.

The object of the following schedule is to facilitate the investigation of suspected cases of mental defect. It is of a suggestive nature only and is printed in the present form for the convenience of school medical officers making inquiries into the mental condition of feeble-minded children.

I. *Name of Child*, address, name of school.

II. *Particulars* of home conditions, environment, school attendance, and other factors.

III. *Family History.* Insanity, feeble-mindedness, alcoholism, tuberculosis, miscarriage, syphilis, epilepsy, other characteristics.

IV. *Personal History.* Constitutional defects, injury at birth, malnutrition, rickets, diseases of childhood, commencement of teething, walking, speech, physical state of mother, length of gestation, convulsions, accident.

V. *Physical Conditions.*

(*a*) General: Speech—defective articulation; sight—blindness (total or partial), errors of refraction; hearing—deaf-mutism, partial mutism, partial deafness; nose and throat—enlarged tonsils, adenoids, mouth breathing, control of spinal reflexes and of salivation.

(*b*) Stigmata: General retardation—cretinoid development; cranium—microcephaly, hydrocephaly, asymmetry, rickets, imperfect closure of fontanelles, simple head measurement; hair—double and treble vortices, wiry or supple; face—irregularity of features; lower jaw—protruding or receding.

APPENDIX D.—DETAILS OF LONDON COUNTY COUNCIL CLEANSING SCHEME.

1. Verminous Heads.—The procedure of this scheme, which is applied in certain schools in which the conditions necessitate stringent action and in which the more complete scheme to be later described is not in operation, is as follows:

The school nurse examines all the children at the school and notes the conditions of their heads, using strict precautions against contagion. The head teacher is then supplied with a white card for each child whose head requires cleansing. The card, which draws attention to the condition and contains directions for cleansing, is closed in a sealed envelope and taken home by the child. At the end of the first week all cases not treated are separated from

[1] With notes as to the aftercare, custody, and the degree and character of manual training and ordinary school teaching likely to be advisable.

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the other children and a red card with full details is filled up by the nurse for each child still unclean. This is forwarded to the divisional superintendent who has the card delivered at the home by the attendance officer. At the end of the second week the assistant superintendent of school nurses visits the school and examines the children proposed for exclusion. After exclusion the divisional superintendent takes out a summons; but any child properly cleansed before the hearing of the case is readmitted to school, examined by the nurse, and the summons is not pressed, the circumstances being explained to the magistrate.

It was found, however, that there were a number of children whose hair required attention, but who could not be classed with dirty children. There existed no method whereby the attention of the parents could be drawn to the condition except by verbal messages. Difficulty arises with regard to such messages and to overcome this an additional (yellow) card was prepared in July, 1912, drawing attention to the condition, and this card has since been used. The following table shows the results of examinations in those schools where the cleansing scheme, as applied to heads, has been put into operation during the year:

Results of examinations.

Departments.	Number examined.	Number clean.	Number verminous.	Number proposed for exclusion.	Number excluded for prosecution.
Boys	637	596	41	18	11
Girls	41,025	29,350	7,841	3,804	2,57
Infants	13,781	11,607	1,294	898	49
Mixed	7,875	6,862	655	322	25
Special	938	635	217	143	7

The difference between the number examined and the total of "number clean" and "number verminous" is due to the number "slightly dirty." Before children are "proposed for exclusion," three notices either of advice or warning have been sent to their parents, but without effect.

The parents of 133 children were prosecuted, and fines varying from 2s. 6d. to 10s. were imposed. In the specially selected schools in which this scheme has been applied, the percentages of children verminous among children examined was 15.8 in 1912, as compared with 14.2 in 1911. The head-cleansing scheme still gives very good results in districts where the cleansing stations have not been established, and the standard of cleanliness in the schools has been progressively raised both in the poorer schools and in those attended by better-class children. The standard set in the case of scholarship candidates in respect of cleanliness of the head has had an educative effect on the elementary and secondary schools. Only a very small proportion of scholarship children are now rejected on this account.

2. *Verminous Bodies and Clothing.*—The revised scheme for dealing with verminous bodies and clothing (under section 122 of the Children Act, 1908) as now at work is given in the following:

The school nurse visits the school and examines all the children. Those whose persons or clothing are not infested with vermin or are not in a foul or filthy condition, but show traces of vermin or are in an unclean condition, take home in a closed envelope a card drawing attention to the unsatisfactory condition and containing advice as to remedial treatment. The children are kept under observation and if an improvement does not occur, a similar card drawing attention to the council's powers under the Children Act is forwarded by the school nurse to the nurse in charge of the station, who inserts on the card

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in the space provided for the purpose, particulars as to when the child may attend for a voluntary bath. The card is then returned to the head teacher, who places it in a closed envelope to be taken home by the child.

This card is also issued to children actually found verminous at the first examination. At the same time, with a view to simultaneous action being taken under the London County Council (General Powers) Act, 1904, Part IV., in regard to conditions obtaining within the homes, the local medical officer of health is informed of the child's condition and of the opportunity given for a bath. Children who keep the initial appointment are given opportunities for three voluntary baths in all, at intervals of from 3 to 10 days. Should the conditions recur, a further notice is issued. Those children who do not take advantage of the opportunities afforded are separated from the clean children in school and the divisional superintendent is requested to serve on the parent or guardian a statutory notice requiring them to cleanse the child within 24 hours, and again offering a voluntary cleansing, should there be no convenience for bathing at home. In the event of a child attending voluntarily at this stage and subsequently becoming verminous, the statutory notice is served again, and, if necessary, repeated before the scheme can proceed. Notification of the request for the service of the statutory notice is forwarded to the local medical officer of health, in order that he may deal with the clothing, etc., at the home, if necessary. The divisional superintendent notifies the nurse when the notice has been served and she reexamines the child, and, if necessary, conveys it to the station for compulsory cleansing. The divisional superintendent is kept informed with regard to all compulsory baths.

In the case of children compulsorily cleansed who are subsequently found verminous, a form similar to the statutory notice, but stating that police court proceedings are being instituted and offering a further voluntary bath, is served upon the parent or guardian. A summons is immediately procured and the local medical officer of health informed of the fact. Pending the hearing by the magistrate, those children who fail to attend for the voluntary bath are examined and, if necessary, are excluded, but any child who presents itself at school as clean is readmitted. The nurse is immediately notified of the readmission, makes an examination, and decides whether the child should continue in attendance. After the hearing of the case in court, the child is conveyed to the station and cleansed.

The practice of keeping the borough medical officers of health informed concerning the various stages reached in each case was introduced with a view to further cooperation between the authority responsible for cleanliness in the home and that responsible for cleanliness in the school, it being useless to cleanse a child if the clothing, bedding, etc., in the home are allowed to remain in a filthy condition. The form of notification has a counterfoil attached, upon which the borough medical officer of health can make a note of the action taken in each case. During the year 670 parents were fined amounts varying from 1s. to 10s. with 2 shillings costs, in respect of each child.

APPENDIX E.—REPORT OF THE MANCHESTER SCHOOL FOR CRIPPLED CHILDREN.

The number of children in the schools on December 31, 1911, was 101—47 boys and 54 girls. There have been admitted during the year 61 new cases, and in addition to these it was thought desirable to readmit 5 old cases for short periods.

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No less than 65 cases have been discharged from the school during 1912. The results in these cases may be classified as follows:

Apparently cured	40
Improved	19
At parent's request	1
Unfit for treatment	5
Total	65

The 40 cases discharged as apparently cured consist almost entirely of rickets and surgical tuberculosis. The rickety cases have been discharged with their deformities completely corrected, whilst each case has been under treatment for a sufficient length of time to arrest the disease, and to insure that there shall be no relapse. The tuberculous cases include a number of instances of spine and hip disease which have been in the school for a period of two or more years, and have given particularly gratifying and satisfactory results. In each case the disease appears as cured; the children present no deformity, and will be able to take their active share in either school or work. The improved cases, 19 in number, include 4 cases of scoliosis, 7 of paralysis, 7 of rickets, and 1 of congenital defect. Each of these 19 cases is distinctly benefited by its stay in the school, but the nature of the disease and the extent of the deformity absolutely precluded any cure in the strict sense of a return to the normal. Each case should, however, be able to attend school or follow some employment. The paralytic cases are especially noteworthy. They were all of a most extensive and severe type, quite unable to walk, and, in fact, several of them had not walked since birth. As the result of operative treatment, assisted by the provision of simple appliance. these children will now be able to attend school, and subsequently to earn their own living. Of the five children discharged as unfit for treatment, two have since died, in each case of tuberculous disease.

The total number of children who have been treated at the school during 1912 is 167. The cases comprise:

Tuberculosis:	
Spine	29
Hip	26
Knee	15
Ankle	2
Severe rickets	68
Paralysis	15
Various other diseases	12
Total	167

During the year 22 operations on inmates of the school have been performed by your visiting surgeon at the Manchester Royal Infirmary.

The number of children remaining in the schools on December 31, 1912, is 102, equally divided between boys and girls.

During the year much time and care have been spent in the study and improvement of the modern methods of treatment in tuberculous disease, disease of bones and joints. The results in these cases, which above all others call for constant supervision over long periods, have been most gratifying, and for the excellence of these results I am very greatly indebted to the constant and enthusiastic cooperation of the matron and nursing staff. The condition of those tuberculous cases which have been discharged in previous years has been carefully investigated, and a record of their progress is being kept. I am glad to report that almost without exception they remain well. The majority of them are now engaged in various occupations, and some of them are showing that their work, side by side with that of normal individuals, is above the average.

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APPENDIX F.—CIRCULARS AND BLANK FORMS ISSUED BY THE PUBLIC HEALTH DEPARTMENT, L. C. C.

Circular M. T. L

LONDON COUNTY COUNCIL.

PUBLIC HEALTH DEPARTMENT.

SIR (or MADAM):

I understand that you wish to obtain medical treatment for your child.

Suitable treatment will be provided at the hospital / center named on the inclosed card, if the following conditions are observed:

1. The entire card must be presented.
2. The child must be taken on the date named on the card.
3. The child must be taken by one of the parents or some other responsible person.

It is hoped that you will be able to avail yourself of the arrangements which have been made.

The charge for the treatment is 1 shilling. This charge may be reduced to 1 penny if the School Care Committee are satisfied that parents are regular subscribers to the Hospital Saturday Fund, or that parents are unable to pay 1 shilling. The amount will be collected from you by the school attendance officer. The section of the Act of Parliament dealing with this matter is printed below.[1]

I am, Sir (or Madam), your obedient servant,

W. H. HAMER,
School Medical Officer.

To the PARENT or GUARDIAN.

[1] LOCAL EDUCATION AUTHORITIES (MEDICAL TREATMENT) ACT, 1909.

SECTION I. Where any local education authority provides for the medical treatment of children attending any public elementary school under section 13 of the Education (Administrative Provisions) Act, 1907, there shall be charged to the parent of every child in respect of any treatment provided for that child such an amount not exceeding the cost of treatment as may be determined by the local education authority, and in the event of payment not being made by the parent, it shall be the duty of the authority, unless they are satisfied that the parent is unable by reason of circumstances other than his own default to pay the amount, to require the payment of that amount from that parent, and any such amount may be recovered summarily as a civil debt.

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Form D. O. 22.

LONDON COUNTY COUNCIL.

315 GARRATT LANE,
WANDSWORTH, S. W.
_____ 1912.

School _____
Name or Child _____
Address _____

DEAR SIR (or MADAM):

This child, who had a voucher card for the Wandsworth School Treatment Center, _____ department, dated _____, did not attend on that date.

Will you, if possible, return this voucher to me. It should not be used on another date.

An appointment will be made and a voucher card forwarded for a later date, if you apply again.

Yours, faithfully,

E. F. BROWNSON.

The HON. SECRETARY,
SCHOOL CARE COMMITTEE.

Form D. O. 23.

LONDON COUNTY COUNCIL.

315 GARRATT LANE,
WANDSWORTH, S. W.
_____ 191 .

School _____
Name or Child _____
Address _____

DEAR SIR (or MADAM):

This child has been registered as a patient at the _____ department of the Wandsworth School Treatment Center, but has failed to attend in accordance with the instructions of the Center Authorities. I shall be glad if you will be good enough to take action with a view to securing that the child resumes attendance as soon as possible. The child should attend on _____ day or _____ day.

Yours, faithfully,

E. F. BROWNSON.
Nurse.

The HON. SECRETARY,
SCHOOL CARE COMMITTEE.

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Form D. O. 41.

LONDON COUNTY COUNCIL.

315 GARRATT LANE,
WANDSWORTH, S. W.,
_____1913.

School_____
Name of Child_____
Address _____

DEAR SIR (or MADAM),

The above-named child has now been discharged from further attendance in the_____department of the Wandsworth School Treatment Center.

Yours, faithfully,

W. H. HAMER,
School Medical Officer.

The HON. SECRETARY,
SCHOOL CARE COMMITTEE.

VOUCHER CARD.

(EYE.)[1]

LONDON COUNTY COUNCIL.

_____School. _____Dept.

As you are unable to obtain suitable medical treatment for your child _____ arrangements have been made for $\frac{\text{him}}{\text{her}}$ to receive treatment at the

WANDSWORTH SCHOOL TREATMENT CENTER,
315 Garratt Lane, Wandsworth SW.,

if $\frac{\text{he}}{\text{she}}$ attends the Center with one of $\frac{\text{his}}{\text{her}}$ parents, or some other responsible person, on _____day, the _____, 1913, at 2.15 o'clock and presents this card.

W. H. HAMER,
School Medical Officer.

Mr. (or Mrs.)_____

[1] Similar cards but of different colors are used for ear, nose, and throat, and dental clinic.

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Form D. O. 27.

LONDON COUNTY COUNCIL.

315 GARRATT LANE,
WANDSWORTH, S.W.,
_____ 191 .

_____ School.

Case of _____ Voucher No_____

Address _____

DEAR SIR (or MADAM).

The above-named child attended at the Wandsworth School Treatment Center on _____ and was ordered glasses for _____. I should be glad if you would bring the matter to the notice of your committee and ask them to make arrangements for the necessary assistance to be given to the parents if they are unable to provide the glasses.

Please fill up and return the inclosed post card (D.O. 42) when the child has actually received the spectacles.

He / She } should again attend the Center for examination in_____

Yours, faithfully,

E. F. BROWNSDON,
Nurse.

The HON. SECRETARY,
School Care Committee.

LONDON COUNTY COUNCIL.

Nurse Brownsdon,
315 Garratt Lane,
Wandsworth,
S.W.

D.O.42.

LONDON COUNTY COUNCIL.

School _____

Name of Child_____ Voucher No._____

This child has now obtained the necessary glasses as prescribed by the Wandsworth School Treatment Center, the parents paying _____ toward the cost.

If helped by any agency please give name. }_____

_____

On behalf of the School Care Committee.

It is important that this card should be filled in and returned to NURSE BROWNSDON, as requested.

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WANDSWORTH SCHOOL TREATMENT CENTER,

315 Garratt Lane, Earlsfield, S. W.

Having had the facts explained to me, I hereby give my consent to the administration of an anæsthetic and the performance of any necessary operation upon _____.

Signed by

_____

Father (mother) of child.

_____ 19__.

The next form is for a notice from the nurse to the secretary of the school care committee, and advising him that the child named in the notice was in need of glasses and asking that he take necessary steps to provide them. A postal card accompanies this notice on which the secretary is asked to reply to the nurse and notify her that the glasses have been secured, stating at the same time how much the parents contributed toward the same.

To the Parent or Guardian.

WANDSWORTH SCHOOL TREATMENT CENTER,

315 Garratt Lane, Earlsfield, S. W.

You are required to bring your child to the above address on _____ _____, *the* _____ *day of* _____ *next, at 2 o'clock, to be operated on as explained to you before you gave your consent.*

Please give a dose of castor oil on _____ *not later than 7 o'clock in the evening.*

On the morning of _____ *give ordinary breakfast* **not later than 8 o'clock.** *At 12 give some beef tea, but* **without** *anything solid. No solid food or milk is to be given after breakfast.*

After the operation, the child is not to be taken home before permission is given.

On arrival at home the child is to be put to bed for 24 hours, and fed only on liquid food.

(*Signed*) _____

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DEPARTMENT OF THE INTERIOR
BUREAU OF EDUCATION

BULLETIN, 1916, No. 50

STATISTICS OF STATE UNIVERSITIES AND STATE COLLEGES

FOR THE YEAR ENDED JUNE 30

1916

WASHINGTON
GOVERNMENT PRINTING OFFICE
1917

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DEPARTMENT OF THE INTERIOR
BUREAU OF EDUCATION

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FOR THE YEAR ENDED JUNE 30

1916

WASHINGTON
GOVERNMENT PRINTING OFFICE
1917

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STATISTICS OF STATE UNIVERSITIES AND STATE COLLEGES

For the Year Ended June 30, 1916

This annual bulletin, formerly prepared and published by the National Association of State Universities, has been published by the Bureau of Education for the past eight years. The data given are taken from reports received from the offices of the presidents of the various institutions, and the figures printed are substantially as given in those reports.

CHANGES IN COURSES AND METHODS OF INSTRUCTION

Alabama Polytechnic Institute.—A two-year course in mining has been established.

University of Arkansas.—In September, 1917, 12 units for conditional admission will be required.

Colorado School of Mines.—Chemistry has been changed from a required unit for entrance and made an elective.

Delaware College.—The two-year course in agriculture has been discontinued.

University of Florida.—The department of history, economics, sociology, and political science has been divided into the department of history and economics and the department of sociology and political science. A course in journalism has been added.

Florida State College for Women.—In September, 1916, the department of business will open.

University of Idaho.—Beginning with the session of 1916–17, no Latin will be required for admission.

Purdue University (Indiana).—In September, 1915, courses in public speaking were established.

State University of Iowa.—A university high school will be established (during summer of 1916) to serve as a demonstration high school for the department of education, not as a college preparatory school.

University of Michigan.—Establishment of the combined curricula between engineering college, medical school, and law school with various arts colleges in this and other States.

Michigan Agricultural College.—A new course in chemical engineering has been added.

Mississippi Agricultural and Mechanical College.—Beginning with the session of 1916–17, 10 units will be required for admission.

University of Mississippi.—The department of oratory has been discontinued.

University of Nebraska.—Music is now accredited in school of fine arts in the course leading to bachelor of fine arts in music.

University of New Mexico.—A graduate school and a school of commerce has been organized; courses in Latin-American history and relations have been added.

New York State College for Teachers.—A department of philology has been organized.

New York State College of Forestry (at Syracuse University).—A course in paper and pulp making is now offered; also correspondence course in lumber and its uses.

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University of North Dakota.—A department of pathology has been created. A short course in embalming has been added. The two-year course in home economics leading to a special certificate in home economics has been discontinued; elective work will be offered in home economics in the four-year course.

Ohio University.—A salesmanship and advertising department has been added.

Ohio State University.—In September, 1916, a college of commerce and journalism will open, based upon two years of academic training for admission; the three-year curriculum of the college of dentistry will be extended to a four-year curriculum.

University of Oregon.—Compulsory military drill will go into effect September, 1916.

University of Porto Rico.—A course for special training of rural teachers has been established.

University of South Carolina.—In September, 1916, entrance requirements will be 14 units.

University of Texas.—The degrees of bachelor of science in home economics, bachelor of business administration, and master of journalism are now offered.

Agricultural and Mechanical College of Texas.—The following new lines of work have been added: Department of forestry, school of veterinary medicine, and four-year courses in science, general engineering, and military engineering.

College of Industrial Arts (Texas).—Three new courses of study have been added—rural arts and science, manual arts, and music—all four-year courses leading to a bachelor's degree.

University of Wisconsin.—The four-year course in music has been revised, and the degree of bachelor of music substituted for that of graduate of music. A new course without foreign language requirements, leading to the degree of bachelor of philosophy, has been established.

Directory of State universities and State colleges.[1]

[Names in *italics* are institutions endowed by the Federal Government under the Morrill Acts.]

Location.	Name.	President.
Auburn, Ala	*Alabama Polytechnic Institute*	Charles C. Thach, LL. D.
University, Ala	University of Alabama	George H. Denny, LL. D.
Tucson, Ariz	*University of Arizona*	R. B. von Klein Smid, A. M.
Fayetteville, Ark	*University of Arkansas*	John C. Futrall, A. M.
Berkeley, Cal	*University of California*	Benj. Ide Wheeler, LL. D.
Boulder, Colo	University of Colorado	Livingston Farrand, LL. D.
Fort Collins, Colo	*Colorado State Agricultural College*	Chas. A. Lory, LL. D
Golden, Colo	Colorado School of Mines	Wm. B. Phillips.
Greeley, Colo	State Teachers College of Colorado	John G. Crabbe, Ph. D.
Storrs, Conn	*Connecticut Agricultural College*	Charles L. Beach, B. S.
Newark, Del	*Delaware College*	Samuel C. Mitchell, Ph. D.
Gainesville, Fla	*University of Florida*	Albert A. Murphree, LL. D.
Tallahassee, Fla	Florida State College for Women	Edward Conradi, Ph. D.
Athens, Ga	*University of Georgia*	David C. Barrow, LL. D., chancellor.
Atlanta, Ga	Georgia School of Technology	Kenneth G. Matheson, LL. D.
Dahlonega, Ga	North Georgia Agricultural College	Gustavus R. Glenn, LL. D.
Honolulu, Hawaii	*College of Hawaii*	Arthur L. Dean, Ph. D.
Moscow, Idaho	*University of Idaho*	Melvin A. Brannon, Ph. D.
Urbana, Ill	*University of Illinois*	Edmund J. James, LL. D.
Bloomington, Ind	Indiana University	William L. Bryan, LL. D.
Lafayette, Ind	*Purdue University*	Winthrop E. Stone, LL. D.
Ames, Iowa	*Iowa State College of Agriculture and Mechanic Arts.*	Raymond A. Pearson, LL. D.
Cedar Falls, Iowa	Iowa State Teachers College	Homer H. Seerley, LL. D.
Iowa City, Iowa	State University of Iowa	Walter A. Jessup, Ph. D.
Lawrence, Kans	University of Kansas	Frank Strong, LL. D.
Manhattan, Kans	*Kansas State Agricultural College*	Henry J. Waters, B. S. A.
Lexington, Ky	*State University of Kentucky*	Henry S. Barker, LL. D.
Baton Rouge, La	*Louisiana State University and Agricultural and Mechanical College.*	Thomas D. Boyd. LL. D.
Orono, Me	*University of Maine*	Robert J. Aley, LL. D.
College Park, Md	*Maryland State College of Agriculture*	Harry J. Patterson, Sc. D.
Amherst, Mass	*Massachusetts Agricultural College*	Kenyon L. Butterfield, LL. D.
Cambridge, Mass	*Massachusetts Institute of Technology*	Richard C. Maclaurin, LL. D.

[1] Corrected to Jan. 15, 1917, in so far as changes have been reported to this bureau.

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Directory of State universities and State colleges—Continued.

Location.	Name.	President.
Ann Arbor, Mich	University of Michigan	Harry B. Hutchins, LL. D.
East Lansing, Mich	*Michigan Agricultural College*	Frank S. Kedzie, Sc. D.
Houghton, Michigan	Michigan College of Mines	Fred W. McNair, Sc. D.
Minneapolis, Minn	*University of Minnesota*	George E. Vincent, LL. D.
Agricultural College, Miss	*Mississippi Agricultural and Mechanical College.*	W. H. Smith, B. S.
Columbus, Miss	Mississippi Industrial Institute and College.	Henry L. Whitfield.
University, Miss	University of Mississippi	Joseph N. Powers, chancellor
Columbia, Mo	*University of Missouri*	Albert Ross Hill, LL. D.
Bozeman, Mont	*Montana College of Agriculture and Mechanic Arts.*	James M. Hamilton, M. S.
Butte, Mont	Montana State School of Mines	Charles H. Bowman, M. S.
Missoula, Mont	University of Montana	Frederick C. Scheuch, acting.
Lincoln, Nebr	*University of Nebraska*	Samuel Avery, LL. D., chancellor.
Reno, Nev	*University of Nevada*	
Durham, N. H	*New Hampshire College of Agriculture and Mechanic Arts.*	Edward T. Fairchild, LL. D.
New Brunswick, N. J	*Rutgers College*	Wm. H. S. Demarest, LL. D.
Albuquerque, N. Mex	University of New Mexico	David R. Boyd, Ph. D.
Socorro, N. Mex	New Mexico School of Mines	Fayette A. Jones, LL. D.
State College, N. Mex	*New Mexico College of Agriculture and Mechanic Arts.*	George E. Ladd.
Albany, N. Y	New York State College for Teachers	Abraham R. Brubacher, Ph.
Ithaca, N. Y	*Cornell University*	Jacob C. Schurman, LL. D.
Syracuse, N. Y	New York State College of Forestry (at Syracuse University).	Hugh P. Baker, M. F., dean.
Chapel Hill, N. C	University of North Carolina	Edward K. Graham, LL. D.
West Raleigh, N. C	*North Carolina College of Agriculture and Mechanic Arts.*	Wallace C. Riddick, C. E.
Agricultural College, N. Dak	*North Dakota Agricultural College*	Edwin F. Ladd, LL. D.
University, N. Dak	University of North Dakota	Frank L. McVey, Ph. D.
Athens, Ohio	Ohio University	Alston Ellis, LL. D.
Columbus, Ohio	*Ohio State University*	Wm. O. Thompson, LL. D.
Oxford, Ohio	Miami University	Raymond M. Hughes, M. S.
Chickasha, Okla	Oklahoma College for Women	G. W. Austin, B. S.
Norman, Okla	University of Oklahoma	Stratton D. Brooks, Ph. D.
Stillwater, Okla	*Oklahoma Agricultural and Mechanical College.*	James W. Cantwell, A. M.
Wilburton, Okla	Oklahoma State School of Mines and Metallurgy.	Lynn Glover.
Corvallis, Oreg	*Oregon State Agricultural College*	Wm. J. Kerr, Sc. D.
Eugene, Oreg	University of Oregon	Prince L. Campbell, A. B.
State College, Pa	*Pennsylvania State College*	Edwin E. Sparks, LL. D
San Juan, P. R	*University of Porto Rico*	Paul G. Miller.
Kingston, R. I	*Rhode Island State College*	Howard Edwards, LL. D.
Charleston, S. C	The Citadel, the Military College of South Carolina.	O. J. Bond, A. M., supt.
Clemson College, S. C	*Clemson Agricultural College*	Walter M. Riggs, E. M. E.
Columbia, S. C	University of South Carolina	Wm. S. Currell, Ph. D.
Brookings, S. Dak	*South Dakota State College of Agriculture and Mechanics Arts.*	Ellwood C. Perisho, M. S.
Rapid City, S. Dak	South Dakota State School of Mines	Cleophas C. O'Harra, Ph. D.
Vermilion, S. Dak	University of South Dakota	Robert L. Slagle, Ph. D.
Knoxville, Tenn	*University of Tennessee*	Brown Ayres, LL. D.
Austin, Tex	University of Texas	Robert E. Vinson, LL. D.
College Station, Tex	*Agricultural and Mechanical College of Texas.*	Wm. B. Bizzell, D. C. L.
Denton, Tex	College of Industrial Arts	F. M. Bralley.
Logan, Utah	*Agricultural College of Utah*	Elmer G. Peterson, Ph. D.
Salt Lake City, Utah	University of Utah	John A. Widtsoe, LL. D.
Burlington, Vt	*University of Vermont and State Agricultural College.*	Guy P. Benton, LL. D.
Blacksburg, Va	*Virginia Polytechnic Institute*	Joseph D. Eggleston, A. M.
Charlottesville, Va	University of Virginia	Edwin A. Alderman, LL. D.
Lexington, Va	Virginia Military Institute	Edward W. Nichols, supt.
Williamsburg, Va	College of William and Mary	Lyon G. Tyler, LL. D.
Pullman, Wash	*State College of Washington*	Ernest O. Holland, Ph. D.
Seattle, Wash	University of Washington	Henry Suzzallo, Ph. D.
Morgantown, W. Va	*West Virginia University*	Frank B. Trotter, LL. D.
Madison, Wis	*University of Wisconsin*	Charles R. Van Hise, LL. D.
Laramie, Wyo	*University of Wyoming*	Clyde A. Duniway, Ph. D.

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TABLE 1.—*The teaching force in State universities and State colleges.*

Names of institutions.	Professors and instructors.			President's salary.	Maximum and minimum salaries.														House in addition to salary.	
					Deans.		Professors.		Associate professors.		Assistant professors.		Adjunct professors.		Instructors.		Assistants.		Tutors and others.			
	Men.	Women.	Total.		Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	President.	Professors.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Alabama Polytechnic Institute	75	0	75	$5,000	$2,900	.....	$2,400	$1,800	$1,800	$1,500	$1,800	$1,500	.....	.....	$1,400	$700	$600	$250	.....	.....	No	0
University of Alabama	65	0	65	6,500	3,200	$2,400	2,500	1,800	1,800	.....	1,000	.....	$1,600	.....	.....	.....	.....	.....	.....	.....	Yes	0
University of Arizona	51	11	62	5,000	3,600	.....	2,500	2,000	2,000	1,800	1,800	1,600	.....	.....	1,600	1,400	.....	.....	.....	.....	Yes	0
University of Arkansas	88	23	111	4,000	3,000	2,500	2,300	1,700	1,600	1,200	1,500	1,400	1,200	$1,000	1,400	500	1,200	900	$200	$200	Yes	0
University of California	598	82	680	12,000	8,000	5,000	8,000	2,200	3,000	1,800	2,500	1,500	.....	.....	2,000	600	1,600	500	.....	.....	Yes	0
University of Colorado	204	37	241	6,000	4,000	.....	3,000	1,800	.....	.....	1,800	1,400	.....	.....	.....	600	.....	.....	.....	.....	Yes	0
Colorado State Agricultural College	65	25	90	5,000	3,000	.....	3,000	2,000	1,800	1,600	1,500	1,300	.....	.....	1,200	1,000	900	.....	.....	.....	No	0
Colorado School of Mines	25	0	25	5,000	.....	.....	3,500	1,500	2,500	1,500	.....	.....	.....	.....	1,500	1,200	.....	.....	.....	.....	Yes	0
State Teachers College of Colorado	35	19	54	5,000	3,000	1,600	2,200	1,400	.....	.....	1,400	1,200	.....	.....	1,200	900	900	480	.....	.....	Yes	0
Connecticut Agricultural College	28	6	34	4,500	.....	.....	2,500	1,600	.....	.....	.....	.....	.....	.....	2,000	600	.....	.....	.....	450	No	0
Delaware College	34	7	41	5,000	4,000	2,000	3,000	1,600	.....	.....	1,750	1,500	.....	.....	1,500	1,000	1,000	1,000	.....	.....	No	0
University of Florida	43	0	43	4,200	2,400	2,100	2,200	1,800	.....	.....	1,700	1,300	.....	.....	1,600	720	300	140	.....	.....	No	0
Florida State College for Women	13	15	28	4,000	2,200	.....	2,000	1,800	.....	.....	1,600	1,100	.....	.....	1,000	600	.....	.....	.....	.....	No	0
University of Georgia	75	0	75	6,000	.....	.....	3,200	2,000	1,800	1,800	.....	.....	1,500	1,500	1,200	1,000	.....	.....	600	100	Yes	0
Georgia School of Technology	72	0	72	6,500	2,700	2,100	3,000	2,100	1,900	1,900	1,500	1,200	.....	.....	1,100	850	.....	.....	480	75	Yes	4
North Georgia Agricultural College	13	1	14	2,500	.....	.....	1,800	1,500	1,200	.....	.....	.....	.....	.....	1,000	.....	.....	.....	.....	.....	No	0
College of Hawaii	18	7	25	5,000	.....	.....	3,500	2,000	.....	.....	1,800	1,800	.....	.....	1,800	450	480	480	.....	.....	No	0
University of Idaho	67	12	79	6,000	2,900	1,800	2,500	2,000	2,000	1,800	1,800	1,500	.....	.....	1,500	1,000	1,000	400	.....	.....	No	0
University of Illinois	590	52	642	12,000	7,000	5,500	5,500	.....	3,000	.....	3,250	.....	.....	.....	2,200	1,000	2,750	.....	.....	.....	Yes	0
Indiana University	220	33	253	7,500	5,000	3,300	3,400	2,200	2,300	1,800	1,900	1,200	.....	.....	1,800	700	800	50	900	200	No	1
Purdue University (Ind.)	203	13	216	6,000	4,000	.....	3,600	.....	2,500	.....	2,000	.....	.....	.....	1,800	.....	900	.....	.....	.....	No	1
Iowa State College of Agriculture and Mechanic Arts.	284	68	352	7,000	4,800	2,750	3,500	2,250	2,500	1,400	2,700	1,800	.....	.....	1,500	800	900	700	.....	.....	Yes	7
Iowa State Teachers College	44	54	98	6,000	.....	.....	2,400	1,800	.....	.....	1,400	1,000	.....	.....	1,400	800	450	.....	.....	.....	Yes	0
State University of Iowa	180	22	202	7,500	5,000	1,100	4,600	800	2,600	1,250	2,500	800	.....	.....	2,300	800	960	50	.....	.....	Yes	0
University of Kansas	176	39	215	6,000	4,000	3,500	3,500	2,200	2,200	1,700	1,700	1,200	.....	.....	1,200	900	700	300	.....	.....	Yes	0
Kansas State Agricultural College	216	42	258	6,500	4,000	2,750	3,600	1,850	2,400	1,400	2,500	1,200	.....	.....	1,700	900	2,200	800	2,600	1,000	No	0
State University of Kentucky	91	9	100	5,500	4,000	2,000	2,250	1,800	1,800	1,500	1,500	1,000	.....	.....	1,000	350	1,000	350	.....	.....	No	0
Louisiana State University and Agricultural and Mechanical College.	97	24	121	5,000	4,000	2,200	2,500	1,600	1,900	.....	2,000	1,200	.....	.....	1,200	600	300	300	108	108	Yes	1

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University of Maine	130	9	139	6,000	2,900	2,900	2,400	1,650	1,650	1,500	1,350	1,200			1,200	720	540				No...	0
Maryland State College of Agriculture.	35	0	35	1,400	1,800		1,800	1,700	1,500												Yes..	0
Massachusetts Agricultural College.	71	1	72	5,000	4,200	2,850	3,000	2,500	2,600	2,000	2,000	1,400			1,500	1,100	1,080	840				
Massachusetts Institute of Technology.	267	2	269																			
University of Michigan	481	22	503	10,000	5,000	2,500	4,000	2,000	3,000	2,000	2,000	1,700			1,600	900	900				No...	0
Michigan Agricultural College	135	22	157	6,500	3,800	2,500	3,000	1,500	2,800	2,000	2,000	1,250			1,800	350	400	200	850	500	No...	8
Michigan College of Mines	23	0	23	5,000			3,000	2,250	2,100		1,700	1,500			1,500	900					No...	0
University of Minnesota	442	64	506	10,000	7,500	2,800	6,000	2,100	3,000	1,000	2,500	1,000			1,750	600					No...	
Mississippi Agricultural and Mechanical College.	83	1	84	3,500	2,500	2,000	2,500	2,000	1,500	1,500	1,200	1,200			1,000	600	240	90	600	90	Yes..	
Mississippi Industrial Institute and College.	7	55	62	3,500			1,800	720			1,000	600									Yes..	0
University of Mississippi	35	6	41	3,500	2,750	2,000	2,000	1,680	2,000	1,100	1,500	1,000			1,000	1,000	300	100			Yes..	13
University of Missouri	212	14	226	9,000	4,500	3,600	3,600	2,400	2,400	1,800	2,200	1,500			1,600	900	1,200	200	200	100	Yes..	2
Montana College of Agriculture and Mechanic Arts.	51	15	66	4,500	3,200		3,000	2,000			2,000	1,500			1,500	1,000	750	500			No...	0
Montana State School of Mines	8	0	8	4,000			3,000	2,000			2,000										No...	0
University of Montana	49	11	60	3,750	3,000	1,200	2,800	1,800			2,200	1,600			1,250	1,000	900	500			No...	0
University of Nebraska	205	62	267	6,000	3,500	2,200	3,100	1,500	2,000	1,200	1,800	800			1,200	600	1,200	250	400	50	No...	0
University of Nevada	25	8	33	6,000	3,000	3,000	2,500	2,500	2,200	2,000	1,800	1,800			1,500	1,200	600	100	300	50	Yes..	0
New Hampshire College of Agriculture and Mechanic Arts.	50	3	53	5,000	2,500	2,000	2,500	1,800	1,800	1,800	1,700	1,400			1,500	900	1,000	600			Yes..	0
Rutgers College (N. J.)	70	8	78	6,000			3,600	2,000	2,000	1,800	1,800	1,500			1,500	1,200	1,000	600			Yes..	0
University of New Mexico	16	5	21	4,500	2,100		2,100	1,600	1,700	1,400	900								200		No...	0
New Mexico School of Mines	6	0	6	3,000			1,800	1,100							250	190					No...	0
New Mexico College of Agriculture and Mechanic Arts.	39	6	45	4,500	2,500	2,200	2,100	1,200	1,600								1,200	600			No...	0
New York State College for Teachers	53	20	73	5,000	3,500	1,400	3,500	2,500			2,400	1,800			1,700	1,200	1,100	800			Yes..	0
Cornell University (N. Y.)	782	38	820	10,000	8,000	3,500	6,000	2,500			2,500	2,000			1,200	800	1,200	50			Yes..	2
New York State College of Forestry (at Syracuse University).	21	0	21	5,000			3,000	2,000			2,000	1,600			1,600	1,000	750	300			No...	0
University of North Carolina	76	0	76	4,000	2,500	2,500	2,500	2,000	2,000	1,600	1,350	1,250			1,200	600	400	50			Yes..	0
North Carolina College of Agriculture and Mechanic Arts.	59	1	60	4,500	2,750		2,800	1,950	1,800	1,700	1,400	1,200			1,800	500					No...	1
North Dakota Agricultural College.	52	21	73	6,000	3,700	3,000	3,000	1,800	1,900		2,100	1,400			1,500	1,000	550	150			No...	0
University of North Dakota	58	15	73	6,000	3,200	3,000	3,000	2,000	2,200	2,000	2,000	1,400			1,700	800	1,260	100	700	120	Yes..	0
Ohio University	52	36	88	6,000	3,000	3,000	2,100	1,600	1,800	1,500	1,550	1,300			1,100	500	650	200	1,300	700	Yes..	0
Ohio State University	438	43	481	7,000	5,000	3,000	3,750	1,800	1,925	1,700	2,500	1,300			1,800	1,000	1,000	700	500	250	Yes..	0
Miami University (Ohio)	44	11	55	5,000	3,000	2,000	2,500	2,000	2,000	1,500	1,500	1,000			1,200	1,000			600	400	Yes..	0
Oklahoma College for Women[1]																						
University of Oklahoma	130	12	142	7,500	4,000	2,100	2,500	1,800	2,100	1,800	1,700	1,400			1,300	1,000	900	700			Yes..	0
Oklahoma Agricultural and Mechanical College.	78	20	98	5,000	2,800	2,400	2,500	2,000	2,000	1,600	1,700	1,400	1,700	1,400	1,300	1,000	900	700	600	360	No...	0
Oklahoma State School of Mines and Metallurgy.	6	0	6	2,700			1,600	1,400	1,400	1,200											Yes..	0
Oregon State Agricultural College	124	38	162	7,000	3,100	2,400	3,000	1,700	2,500	1,500	2,000	1,100			1,600	600	500	450			No...	1
University of Oregon	99	13	112	5,000	3,000	2,500	2,500	1,600	1,600	1,200					1,200	100	1,200	100			Yes..	0
Pennsylvania State College	251	28	279	9,000	5,000	1,500	2,750	1,800	2,350	1,200	2,500	1,200			1,800	850	1,200	600			Yes..	5

[1] No report.

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TABLE 1.—*The teaching force in State universities and State colleges*—Continued.

Names of institutions.	Professors and instructors.			President's salary.	Maximum and minimum salaries.														House in addition to salary.	
					Deans.		Professors.		Associate professors.		Assistant professors.		Adjunct professors.		Instructors.		Assistants.		Tutors and others.			
	Men.	Women.	Total.		Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	President.	Professors.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
University of Porto Rico	37	30	67	.....	$3,000	$3,000	$2,000	$1,800	.....	.....	$1,700	$1,500	.....	.....	$1,400	$450	$360	$360	.....	.....	No...	2
Rhode Island State College	28	6	34	$4,500	2,400	.....	2,400	1,800	.....	.....	1,600	1,600	.....	.....	1,500	800	400	.....	.....	.....	No...	0
The Citadel, the Military College of South Carolina.	14	0	14	3,000	.....	.....	2,000	1,700	.....	.....	1,200	.....	.....	.....	.....	.....	.....	.....	.....	.....	Yes..	2
Clemson Agricultural College (S. C.)	71	0	71	4,500	3,000	2,500	2,500	1,900	$1,700	$1,700	1,500	1,500	.....	.....	1,200	900	1,200	900	.....	.....	.....	.....
University of South Carolina	36	3	39	5,000	2,500	2,000	2,000	2,000	1,500	1,500	.....	.....	$1,200	$1,200	800	500	400	300	.....	.....	Yes..	19
South Dakota State College of Agriculture and Mechanic Arts.	63	9	72	3,500	3,000	.....	3,000	1,200	2,100	1,600	1,600	800	.....	.....	1,500	700	1,500	500	.....	.....	Yes..	0
South Dakota State School of Mines.	12	1	13	2,800	.....	.....	1,900	1,550	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
University of South Dakota	38	14	52	5,000	2,750	2,250	2,350	1,600	.....	.....	1,550	1,250	.....	.....	1,000	600	450	150	.....	.....	No...	0
University of Tennessee	178	12	190	5,200	2,800	1,600	2,200	1,800	1,800	1,600	1,600	1,200	.....	.....	1,300	400	600	25	.....	.....	Yes..	1
University of Texas	169	27	196	6,000	4,000	3,250	3,250	2,500	2,500	2,000	.....	.....	2,200	1,700	1,800	900	400	120	$1,000	$450	No...	0
Agricultural and Mechanical College of Texas.	102	0	102	6,000	3,300	3,000	3,000	1,800	2,000	1,650	1,700	1,200	.....	.....	1,500	1,000	1,000	200	.....	.....	Yes..	.....
College of Industrial Arts (Tex.)	10	46	56	4,500	2,400	1,800	2,000	1,600	.....	.....	.....	.....	.....	.....	1,500	1,000	100	100	.....	.....	.....	.....
Agricultural College of Utah	67	19	86	5,500	3,600	2,000	2,500	1,800	.....	.....	1,800	1,200	.....	.....	1,400	800	600	200	.....	.....	Yes..	0
University of Utah	87	21	108	5,000	3,000	2,500	2,500	1,800	2,100	1,750	1,700	1,300	.....	.....	1,250	.....	.....	.....	.....	.....	Yes..	2
University of Vermont and State Agricultural College.	104	2	106	7,000	3,000	1,700	3,000	1,200	1,600	.....	2,000	500	.....	.....	1,500	250	.....	.....	.....	.....	No...	0
Virginia Polytechnic Institute	55	0	55	5,000	2,600	2,200	2,000	1,800	1,800	1,200	.....	.....	.....	.....	.....	.....	.....	.....	650	100	Yes..	0
University of Virginia	122	0	122	8,000	.....	.....	3,600	.....	2,500	.....	.....	.....	2,500	.....	1,700	600	500	250	250	150	Yes..	24
Virginia Military Institute	25	0	25	4,500	.....	.....	2,500	2,300	.....	.....	1,000	500	1,200	1,200	1,000	.....	900	.....	500	.....	Yes..	.....
College of William and Mary (Va.)	18	0	18	2,760	2,000	.....	1,800	.....	.....	.....	.....	.....	1,200	.....	800	.....	.....	.....	.....	.....	Yes..	9
State College of Washington	115	19	134	6,000	3,000	2,000	3,000	1,800	2,000	1,500	1,600	1,400	.....	.....	.....	.....	.....	.....	.....	.....	Yes..	0
University of Washington	184	33	217	10,000	3,000	2,400	3,000	2,100	2,300	2,000	2,000	1,350	.....	.....	1,500	1,000	900	500	.....	.....	Yes..	0
West Virginia University	99	9	108	4,800	3,600	2,700	3,000	2,200	2,000	1,800	1,800	1,500	.....	.....	1,500	1,000	1,000	300	450	120	Yes..	0
University of Wisconsin	431	64	495	7,000	5,000	3,250	4,500	2,850	3,000	2,250	2,000	1,750	.....	.....	1,200	900	1,000	500	800	50	Yes..	0
University of Wyoming	36	16	52	5,000	3,000	.....	2,400	2,000	2,000	1,800	1,000	1,400	.....	.....	2,000	1,000	600	400	400	200	Yes..	4
															1,300	500	900	500	600	100	Yes..	0

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Names of institutions.	Regular term enrollment.													Enrolled in 1915 summer school.		Enrolled in other short courses.		Enrolled in professional departments.				Students in military drill.
	Preparatory department.[1]		Collegiate department.		Graduate department.		Professional departments.		All other students.[2]		Total (excluding duplicates).											
	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Total.	Men.	Women.	Men.	Women.	Law.	Medicine.	Dentistry.	Pharmacy.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Alabama Polytechnic Institute	.....	.....	615	18	29	3	121	0	92	2	857	23	880	128	76	.....	.....	0	0	0	48	667
University of Alabama	.....	.....	467	88	9	1	178	3	15	0	669	92	761	220	515	.....	.....	119	57	0	5	.....
University of Arizona	.....	.....	193	136	16	8	6	0	60	53	269	197	466	0	0	128	35	6	0	0	0	146
University of Arkansas	40	48	449	300	10	0	81	2	.....	.....	505	387	892	46	87	.....	.....	0	83	0	0	300
University of California	.....	.....	3,104	2,299	534	478	565	34	160	249	3,825	2,677	6,502	1,488	3,876	181	0	239	124	139	97	1,484
University of Colorado	.....	.....	697	438	53	28	156	12	36	15	909	493	1,402	166	538	0	0	54	79	0	35	.....
Colorado State Agricultural College	318	90	396	243	1	1	0	0	0	0	715	334	1,049	25	21	0	0	0	0	0	0	624
Colorado School of Mines	.....	.....	175	1	0	0	0	0	0	0	175	1	176	0	0	0	0	0	0	0	0	.....
State Teachers College of Colorado	39	136	85	515	.....	.....	.....	.....	.....	.....	124	651	775	278	764	.....	.....	.....	.....	.....	.....	.....
Connecticut Agricultural College	.....	.....	209	12	.....	.....	.....	.....	.....	.....	209	12	221	0	0	26	3	0	0	0	0	202
Delaware College	.....	.....	192	74	.....	.....	.....	.....	24	0	216	74	290	25	149	.....	.....	0	0	0	0	198
University of Florida	66	0	264	0	12	0	69	0	.....	.....	411	0	411	109	293	48	0	69	0	0	0	150
Florida State College for Women	0	99	0	273	0	6	0	0	0	15	0	395	395	0	259	0	0	0	0	0	0	0
University of Georgia	.....	.....	585	0	22	0	101	0	.....	.....	689	0	689	233	795	224	37	88	0	0	16	410
Georgia School of Technology	.....	.....	724	0	.....	.....	.....	.....	31	0	755	0	755	100	0	.....	.....	.....	.....	.....	.....	.....
North Georgia Agricultural College	100	26	88	3	.....	.....	.....	.....	.....	.....	188	29	217	11	26	0	0	0	0	0	0	170
College of Hawaii	.....	.....	28	4	6	0	0	0	7	72	41	76	117	.....	.....	.....	.....	0	0	0	0	.....
University of Idaho	.....	.....	163	183	3	11	33	0	2	29	304	223	527	40	206	91	0	33	0	0	0	157
University of Illinois	.....	.....	3,595	1,065	407	77	566	31	78	31	4,646	1,204	5,850	647	381	.....	.....	87	226	128	156	2,400
Indiana University	.....	.....	1,277	909	198	59	226	0	0	0	1,701	968	2,669	513	342	0	0	65	161	0	0	.....
Purdue University (Ind.)	.....	.....	1,724	203	45	7	63	2	15	26	1,847	238	2,085	72	67	139	25	0	0	0	65	1,024
Iowa State College of Agriculture and Mechanic Arts	308	59	1,851	570	84	19	109	0	25	11	2,268	659	2,927	223	436	1,736	229	.....	.....	.....	.....	924
Iowa State Teachers College	217	2,235	257	1,382	0	0	0	0	2	45	476	3,662	4,138	235	2,059	0	0	0	0	0	0	.....
State University of Iowa	.....	.....	1,040	732	127	78	64	12	66	72	1,920	894	2,814	286	303	0	0	156	168	301	74	672
University of Kansas	.....	.....	1,388	842	93	58	327	40	13	44	1,669	964	2,633	282	287	0	0	171	136	0	60	.....
Kansas State Agricultural College	339	145	1,050	711	54	22	61	0	104	71	1,547	953	2,500	185	351	411	1	.....	.....	.....	.....	688
State University of Kentucky	.....	.....	617	189	73	10	95	2	126	42	911	243	1,154	146	33	194	1	97	0	0	0	380

[1] Including secondary schools.
[2] Includes students in music, art, oratory, business, etc., unless they are enrolled in four-year courses leading to a collegiate degree.

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TABLE 2.—*Student enrollment in State universities and State colleges*—Continued.

Names of institutions.	Regular term enrollment.													Enrolled in 1915 summer school.		Enrolled in other short courses.		Enrolled in professional departments.				Students in military drill.
	Preparatory department.		Collegiate department.		Graduate department.		Professional departments.		All other students.		Total (excluding duplicates).							Law.	Medicine.	Dentistry.	Pharmacy.	
	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Total.	Men.	Women.	Men.	Women.					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Louisiana State University and Agricultural and Mechanical College	28	36	566	130	29	6	64	2	34	20	721	194	915	319	284	307	50	66	0	0	0	342
University of Maine	.....	.....	813	156	36	10	121	2	42	25	1,012	193	1,205	97	35	32	0	101	0	0	22	555
Maryland State College of Agriculture	43	0	284	0	8	0	0	0	0	0	292	0	292	26	112	111	70	0	0	0	0	248
Massachusetts Agricultural College	.....	.....	577	14	50	2	0	0	24	1	651	17	668	35	127	136	17	0	0	0	0	471
Massachusetts Institute of Technology	.....	.....	1,747	18	66	0	0	0	0	0	1,813	18	1,831	0	0	0	0	0	0	0	0	356
University of Michigan	.....	.....	3,655	1,142	269	88	1,278	30	0	0	5,202	1,260	6,462	1,584	404	0	0	452	377	353	126	.....
Michigan Agricultural College	.....	.....	1,154	330	.....	.....	58	0	170	0	1,382	330	1,712	137	38	202	15	0	0	0	0	1,201
Michigan College of Mines	.....	.....	112	0	0	0	0	0	0	0	112	0	112	0	0	0	0	0	0	0	0	.....
University of Minnesota	1,517	782	2,261	1,644	237	98	895	88	54	226	4,964	2,838	7,802	745	1,898	.....	.....	171	269	375	105	1,491
Mississippi Agricultural and Mechanical College	64	0	934	0	18	0	0	0	228	0	1,190	0	1,190	193	241	.....	.....	0	0	0	0	1,133
Mississippi Industrial Institute and College	.....	.....	0	693	0	0	0	0	0	70	0	843	843	0	0	0	0	0	0	0	0	0
University of Mississippi	.....	.....	301	78	10	1	188	1	19	18	503	98	601	119	278	.....	.....	88	56	0	45	.....
University of Missouri	.....	.....	2,346	1,265	184	72	195	21	.....	.....	2,725	1,358	4,083	580	555	243	23	121	95	.....	.....	925
Montana College of Agriculture and Mechanic Arts	162	33	199	111	0	0	0	0	9	31	370	175	545	44	29	196	82	0	0	0	0	66
Montana State School of Mines	.....	.....	75	0	0	0	0	0	0	0	75	0	75	0	0	0	0	0	0	0	0	.....
University of Montana	.....	.....	126	199	12	8	82	6	51	67	271	280	551	94	271	80	0	0	0	0	0	.....
University of Nebraska	83	202	1,674	1,360	179	145	518	8	384	274	2,838	1,988	4,820	283	518	156	0	177	216	0	138	773
University of Nevada	.....	.....	240	187	4	10	0	0	0	0	244	197	441	638	0	0	0	0	0	0	0	122
New Hampshire College of Agriculture and Mechanic Arts	.....	.....	337	110	4	1	0	0	166	3	509	114	626	0	0	0	0	0	0	0	0	440
Rutgers College (N. J.)	174	33	460	0	24	0	0	0	0	0	658	33	691	111	436	88	0	0	0	0	0	.....
University of New Mexico	10	4	106	54	2	1	0	0	17	27	133	84	217	137	0	137	0	0	0	0	0	.....
New Mexico School of Mines	9	0	28	0	0	0	0	0	0	0	37	0	37	0	0	0	0	0	0	0	0	.....
New Mexico College of Agriculture and Mechanic Arts	106	31	70	23	0	0	0	0	3	9	181	84	265	0	0	0	0	0	0	0	0	.....

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TABLE 3.—*Property and income of State*

	Names of institutions.	Property.				
		Bound volumes in libraries.	Value of library, scientific apparatus, machinery, and furniture.	Value of grounds (including farm).	Value of buildings.	Endowment funds
	1	2	3	4	5	6
1	Alabama Polytechnic Institute	26,500	$183,800	$9,000	$510,000	$284,[illegible]
2	University of Alabama	31,000	180,000	300,000	940,000	6[illegible]
3	University of Arizona	22,000	155,000	110,000	375,000	10[illegible]
4	University of Arkansas	30,000	233,000	75,000	300,000	15[illegible]
5	University of California	328,000	2,573,885	.....	9,105,045	2,552,[illegible]
6	University of Colorado	90,690	354,000	185,000	920,000	7[illegible]
7	Colorado State Agricultural College	38,322	249,505	239,000	465,261	18[illegible]
8	Colorado School of Mines	14,000	288,303	83,816	454,333	.....
9	State Teachers College of Colorado	40,000	127,055	170,000	452,000	.....
10	Connecticut Agricultural College	14,000	125,000	30,000	580,000	138,000
11	Delaware College	21,500	200,000	300,000	305,000	30[illegible]
12	University of Florida	26,000	84,000	185,000	426,000	225,[illegible]
13	Florida State College for Women	9,000	55,000	58,000	254,300	.....
14	University of Georgia	42,000	160,000	585,000	625,000	372,[illegible]
15	Georgia School of Technology	14,000	209,000	165,000	570,000	150,000
16	North Georgia Agricultural College	4,000	7,000	20,000	85,000	.....
17	College of Hawaii	21,788	134,316	120,251	74,141	.....
18	University of Idaho	30,000	186,287	57,775	512,650	60[illegible]
19	University of Illinois	360,258	1,760,108	1,083,649	2,598,872	614,[illegible]
20	Indiana University	109,000	214,400	223,000	1,120,000	878,[illegible]
21	Purdue University (Ind.)	55,600	570,000	209,000	1,287,500	340,[illegible]
22	Iowa State College of Agriculture and Mechanic Arts.	62,200	879,836	208,979	2,587,787	488,[illegible]
23	Iowa State Teachers College	44,991	275,000	10,000	1,000,000	.....
24	State University of Iowa	125,630	1,041,805	446,014	2,464,144	491,[illegible]
25	University of Kansas	100,000	677,500	110,000	1,212,500	171,[illegible]
26	Kansas State Agricultural College	55,100	655,197	405,958	989,974	4[illegible]
27	State University of Kentucky	28,186	215,987	243,850	614,000	245,[illegible]
28	Louisiana State University and Agricultural and Mechanical College.	47,617	195,796	177,341	561,098	315,313
29	University of Maine	59,000	218,643	11,000	702,778	252,350
30	Maryland State College of Agriculture	7,500	103,000	57,400	356,900	115,[illegible]
31	Massachusetts Agricultural College	45,000	412,179	85,090	942,132	361,[illegible]
32	Massachusetts Institute of Technology	121,711	800,000	1,422,966	6,033,175	5,105,[illegible]
33	University of Michigan	368,238	2,386,218	543,106	4,208,655	1,015,[illegible]
34	Michigan Agricultural College	43,000	170,000	110,377	818,000	.....
35	Michigan College of Mines	27,168	340,091	104,025	336,168	.....
36	University of Minnesota	227,000	1,882,899	2,649,622	5,858,411	1,647,[illegible]
37	Mississippi Agricultural and Mechanical College.[2]	29,416	483,973	157,520	725,581	239,[illegible]
38	Mississippi Industrial Institute and College.	11,000	66,882	195,000	458,600	.....
39	University of Mississippi	31,000	75,000	105,000	385,000	700,000
40	University of Missouri	200,000	1,149,208	796,466	1,975,447	1,307,[illegible]
41	Montana College of Agriculture and Mechanic Arts.	13,588	166,937	79,550	305,500	538,[illegible]
42	Montana State School of Mines	9,000	51,000	.....	152,000	.....
43	University of Montana	36,000	126,000	98,000	214,000	.....
44	University of Nebraska	123,000	525,753	827,950	1,329,910	811,[illegible]
45	University of Nevada	28,300	223,861	91,729	479,640	305,[illegible]
46	New Hampshire College of Agriculture and Mechanic Arts.	35,000	123,800	44,000	513,000	950,000
47	Rutgers College (N. J.)	86,315	238,000	454,500	940,412	882,[illegible]
48	University of New Mexico	13,000	35,523	30,000	128,300	.....
49	New Mexico School of Mines	2,100	22,713	8,000	75,000	.....
50	New Mexico College of Agriculture and Mechanic Arts.	17,029	185,849	40,740	170,600	.....
51	New York State College for Teachers	4,800	78,473	163,000	374,716	.....
52	Cornell University (N. Y.)	474,382	2,552,665	355,189	6,307,770	14,328,[illegible]
53	New York State College of Forestry (at Syracuse University).	1,600	60,000	.....	275,000	.....
54	University of North Carolina	74,750	276,000	125,500	749,000	154,909
55	North Carolina College of Agriculture and Mechanic Arts.	30,000	317,234	108,310	643,235	125,000

[1] Includes appropriations for experiment stations, farmers' institutes, and extension work.
[2] No report as to income.

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iversities and State colleges.

Income from—							Analysis of State appropriations.				
Student fees, exclusive of board and room rent.	Productive funds.	The State.[1]	United States Government.	Private benefactions.	All other sources.	Total working income.	Mill tax rate.	Receipts from mill tax.	Appropriation for current expenses.[1]	For building and permanent improvements.	
7	8	9	10	11	12	13	14	15	16	17	
14,745	$21,440	$134,459	$89,392	0	$17,533	$277,569	.....	.....	$84,459	$50,000	1
40,748	63,167	45,000	0	$3,582	3,966	156,463	.....	.....	45,000	.....	2
7,004	0	160,372	91,715	0	10,570	269,661	.....	.....	160,372	.....	3
21,366	4,200	133,853	93,042	0	14,307	266,768	.....	.....	133,853	.....	4
57,161	241,242	1,934,483	101,037	656,320	300,745	3,490,988	.....	.....	1,570,312	364,171	5
64,500	.....	274,000	0	0	0	338,500	½	$210,000	60,000	4,000	6
9,672	13,848	179,732	94,793	0	22,202	320,247	½	97,545	32,187	50,000	7
18,838	.....	93,381	0	0	8,035	120,254	½	93,381	.....	.....	8
29,529	1,237	122,212	0	0	989	153,967	1/10	112,713	9,499	.....	9
21,966	6,750	50,272	76,397	0	92,769	248,154	.....	.....	50,272	.....	10
12,205	9,204	40,084	81,279	715,000	17,724	875,496	.....	.....	40,084	.....	11
6,676	9,894	65,986	71,487	1,750	781	156,574	.....	.....	65,986	.....	12
12,527	2,064	74,250	0	0	0	88,841	.....	.....	69,250	5,000	13
19,278	28,372	196,424	68,433	11,360	27,856	351,723	.....	.....	196,424	.....	14
35,458	.....	86,390	0	150,000	11,167	283,015	.....	.....	86,390	.....	15
1,800	.....	26,500	0	0	2,000	30,300	.....	.....	26,500	.....	16
101	.....	32,000	50,000	300	4,698	87,099	.....	.....	14,000	18,000	17
4,500	75,919	89,800	90,000	0	12,000	272,219	.....	.....	77,550	12,250	18
346,923	32,450	2,453,371	116,282	0	202,849	3,051,875	1	2,016,871	.....	436,500	19
71,532	43,920	642,527	0	0	6,391	764,370	.....	560,264	.....	82,463	20
84,950	17,088	517,357	108,931	0	251,466	979,792	4/10	416,357	101,000	([2])	21
96,040	38,324	1,127,192	108,781	8,050	204,896	1,583,283	.....	.....	1,034,692	[4] 92,500	22
38,100	.....	402,579	0	0	13,809	454,488	.....	.....	300,000	[4] 102,579	23
114,026	22,475	925,987	0	0	215,919	1,278,407	.....	.....	686,516	239,471	24
87,000	7,200	625,000	0	0	43,000	762,200	.....	.....	625,000	.....	25
50,692	26,816	641,570	104,555	0	178,751	1,002,384	.....	.....	637,570	4,000	26
13,623	10,644	183,384	103,838	3,750	3,178	318,417	1/10	57,171	126,213	.....	27
13,933	14,556	143,400	81,622	.....	37,575	291,086	.....	.....	143,400	.....	28
73,076	9,915	185,639	94,388	0	55,368	418,386	.....	.....	136,889	48,750	29
.....	3,747	39,000	87,747	0	20,413	150,907	.....	.....	39,000	.....	30
9,128	10,613	523,780	74,798	0	104,036	722,355	.....	.....	309,000	214,780	31
449,078	154,049	100,000	16,667	2,225,407	37,312	2,982,513	.....	.....	100,000	.....	32
175,186	63,647	1,059,000	0	75,972	340,935	2,015,040	¾	995,000	9,000	55,000	33
38,793	71,417	451,000	108,032	10,000	136,460	815,702	½	402,170	48,830	.....	34
11,128	0	65,000	0	0	3,846	79,974	.....	.....	65,000	.....	35
290,884	55,030	1,820,063	123,556	0	264,590	2,454,123	11/100	335,852	1,328,911	155,300	36
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	37
14,469	9,549	72,500	0	0	183	96,701	.....	.....	72,500	.....	38
22,000	42,000	52,250	0	3,000	0	119,250	.....	.....	32,250	20,000	39
148,272	82,157	744,333	109,909	.....	182,499	1,267,170	.....	.....	671,048	73,285	40
11,898	29,843	161,332	92,950	0	4,859	300,882	.....	.....	161,332	.....	41
944	.....	35,000	0	0	0	35,944	.....	.....	35,000	.....	42
27,196	.....	185,000	0	0	0	212,196	.....	.....	185,000	.....	43
100,917	47,903	1,006,525	100,716	0	161,147	1,417,208	1	447,157	139,000	420,368	44
6,317	16,652	117,522	88,326	570	6,668	236,055	½	115,689	1,833	.....	45
15,360	40,298	139,420	92,133	125	67,779	355,115	.....	.....	79,420	60,000	46
34,801	48,624	95,088	97,646	63,705	2,526	342,390	.....	.....	90,130	4,958	47
2,484	34,093	64,557	0	0	3,520	104,654	.....	.....	64,557	.....	48
2,147	8,353	21,608	0	0	130	32,238	.....	.....	21,608	.....	49
1,910	11,821	21,094	93,413	.....	9,419	137,657	.....	.....	21,094	.....	50
5,874	0	118,500	0	0	4,106	128,480	.....	.....	110,000	8,500	51
600,243	590,047	825,345	110,443	371,412	635,153	3,132,643	.....	.....	598,407	226,938	52
12,000	0	139,820	0	0	0	151,820	.....	.....	110,820	29,000	53
63,003	14,362	125,417	0	0	143,172	345,954	.....	.....	105,417	20,000	54
22,129	7,500	127,953	96,452	20,000	13,124	287,158	.....	.....	107,953	20,000	55

[1] $104,380 included in receipts from mill tax.
[4] Amount derived from tax levy of previous years which was not drawn until 1915–16.

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TABLE 3.—*Property and income of*

	Names of institutions.	Property.				
		Bound volumes in libraries.	Value of library, scientific apparatus, machinery, and furniture.	Value of grounds (including farm).	Value of buildings.	Endowment funds.
	1	2	3	4	5	6
56	North Dakota Agricultural College	25,932	213,235	95,000	595,000	1,263,1
57	University of North Dakota	58,915	281,468	112,408	513,110	1,632,2
58	Ohio University	45,000	208,199	380,896	956,000	172,3
59	Ohio State University	160,500	1,471,788	1,834,075	2,645,690	1,000,2
60	Miami University (Ohio)	45,964	208,552	60,000	734,733	117,3
61	Oklahoma College for Women [3]					
62	University of Oklahoma	25,000	229,328	98,751	530,202	3,670,0
63	Oklahoma Agricultural and Mechanical College.	25,807	266,070	60,000	531,700	
64	Oklahoma State School of Mines and Metallurgy.	1,250	75,000	5,000	100,000	
65	Oregon State Agricultural College	37,465	385,446	428,949	868,460	202,6
66	University of Oregon	61,000	190,551	319,000	472,251	55,0
67	Pennsylvania State College	56,027	902,092	88,107	1,939,651	615,1
68	University of Porto Rico	8,000	108,582	38,052	135,967	19,2
69	Rhode Island State College	21,248	145,890	14,855	324,476	50,0
70	The Citadel, the Military College of South Carolina.	6,200	25,000		330,000	
71	Clemson Agricultural College (S. C.)	17,857	370,933	118,600	750,189	154,4
72	University of South Carolina	50,000	168,247	945,984	305,350	
73	South Dakota State College of Agriculture and Mechanic Arts.	18,800	76,250	70,000	400,000	300,9
74	South Dakota State School of Mines [5]	4,400	57,000	17,000	96,000	
75	University of South Dakota	32,000	200,000	50,000	500,000	
76	University of Tennessee	42,000	244,463	748,950	454,539	405,9
77	University of Texas	129,878	704,016	147,500	1,703,615	2,000,0
78	Agricultural and Mechanical College of Texas.	8,000	378,899	148,925	1,160,222	200,0
79	College of Industrial Arts (Tex.)	5,000	75,000	50,000	350,000	
80	Agricultural College of Utah	29,890	183,800	23,200	564,700	
81	University of Utah	42,650	259,910	43,000	651,300	
82	University of Vermont and State Agricultural College.	94,353	280,000	75,000	1,150,000	1,063,9
83	Virginia Polytechnic Institute	26,856	176,500	79,200	593,000	344,3
84	University of Virginia	90,000	334,287	600,000	1,273,429	2,215,8
85	Virginia Military Institute	15,000	27,750	37,500	522,310	21,3
86	College of William and Mary (Va.)	17,800	46,000	50,000	175,000	151,2
87	State College of Washington	42,357	311,523	123,798	1,290,210	737,9
88	University of Washington	82,322	586,857	1,061,250	889,063	5,000,0
89	West Virginia University	58,331	175,000	300,000	700,000	113,1
90	University of Wisconsin	240,000	1,595,189	2,137,311	3,872,594	685,6
91	University of Wyoming	39,000	283,000	110,000	455,000	92,0

[1] Includes receipts from mill tax.
[2] Certain receipts from sales of produce and certain student fees not available for the institution amounting to $224,726 have been deducted.
[3] No report.
[4] Fertilizer tax.
[5] No report as to income.

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...niversities and State colleges—Continued.

Income from—							Analysis of State appropriations.				
Student fees, excluding board and room rent.	Productive funds.	The State.	United States Government.	Private benefactions.	All other sources.	Total working income.	Mill tax rate.	Receipts from mill tax.	Appropriation for current expenses.	For building and permanent improvements.	
7	8	9	10	11	12	13	14	15	16	17	
12,637	77,650	165,805	96,247	0	16,732	369,071	.....	.....	146,805	19,000	56
25,313	72,942	252,106	0	0	4,795	355,156	.....	.....	240,026	12,080	57
69,476	11,243	191,418	0	0	25,945	298,082	$\frac{1}{3}\frac{1}{3}\frac{1}{3}$	.....	[1] 173,068	18,350	58
233,856	59,843	1,417,976	85,488	33,355	103,200	[2]1,708,992	$\frac{1}{3}\frac{1}{3}\frac{1}{3}$	.....	[2]1,192,724	225,252	59
27,033	7,629	225,185	0	0	0	259,847	$\frac{1}{3}\frac{1}{3}\frac{1}{3}$	.....	[1] 157,978	67,207	60
											61
11,361	153,250	200,250	0	400	0	365,261	.....	.....	100,250	100,000	62
4,147	0	41,036	101,256	0	47,426	193,865	.....	.....	41,036	.....	63
0	0	17,980	0	0	0	17,980	.....	.....	17,980	.....	64
32,639	11,615	500,054	102,346	0	38,155	684,809	$\frac{4}{10}$	373,190	126,864	.....	65
9,864	10,728	280,595	0	0	0	301,187	$\frac{1}{10}$	280,595	.....	.....	66
71,026	31,020	535,678	126,894	0	130,105	894,723	.....	.....	472,245	63,433	67
2,097	27,601	35,000	50,000	0	4,347	119,045	.....	.....	35,000	.....	68
6,486	2,500	50,000	90,218	0	12,400	161,604	.....	.....	40,000	10,000	69
41,977	0	40,500	0	0	6,149	88,626	.....	.....	35,000	5,500	70
4,670	9,266	164,881	80,691	0	7,635	267,143	(4)	164,881	.....	.....	71
15,651	0	105,123	0	0	9,405	130,179	.....	.....	93,047	12,076	72
15,882	32,114	194,500	96,167	.....	41,761	380,424	.....	.....	119,500	75,000	73
											74
16,855	10,061	144,500	0	0	14,004	185,420	.....	.....	124,500	20,000	75
57,722	26,513	104,848	99,201	3,550	24,998	316,832	(6)	104,848	.....	.....	76
50,001	202,249	711,682	0	0	0	963,932	.....	.....	711,682	.....	77
11,473	11,475	479,200	113,449	0	133,614	749,211	.....	.....	346,700	132,500	78
35,000	0	222,187	0	0	2,000	259,187	.....	.....	116,187	106,000	79
10,610	14,084	182,377	92,437	0	12,578	312,086	(7)	79,702	41,675	61,000	80
.....	2,000	209,357	.....	.....	.....	211,357	(8)	209,357	.....	.....	81
47,427	46,410	59,200	92,274	11,123	27,777	284,211	.....	.....	59,200	.....	82
27,342	20,658	114,150	92,605	0	102,463	357,218	.....	.....	97,650	16,500	83
83,971	100,677	109,167	0	39,338	27,229	360,382	.....	.....	109,167	.....	84
16,423	1,261	48,750	0	0	5,012	71,446	.....	.....	46,250	2,500	85
6,937	7,264	41,250	0	0	9,741	65,192	.....	.....	41,250	.....	86
20,560	52,000	344,608	96,523	2,510	73,411	589,612	(9)	335,368	9,240	.....	87
172,098	1,250	634,393	0	0	0	808,241	(10)	551,688	12,894	70,311	88
28,068	6,085	375,000	92,071	0	34,609	535,833	.....	.....	275,000	100,000	89
447,899	36,247	1,664,602	106,165	16,740	347,019	2,618,672	$\frac{3}{4}$	1,237,420	376,538	50,644	90
5,918	14,210	117,755	91,249	0	10,172	239,304	$\frac{1}{2}$	106,755	11,000	.....	91

[6] 2½ per cent of gross revenue of the State.
[7] 28.34 per cent of 28 per cent of the State levy of 2 mills.
[8] 64.43 per cent of 28 per cent of the State levy of 2 mills.
[9] A little less than one-third of 1 mill.
[10] A little less than one-half of 1 mill.

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